

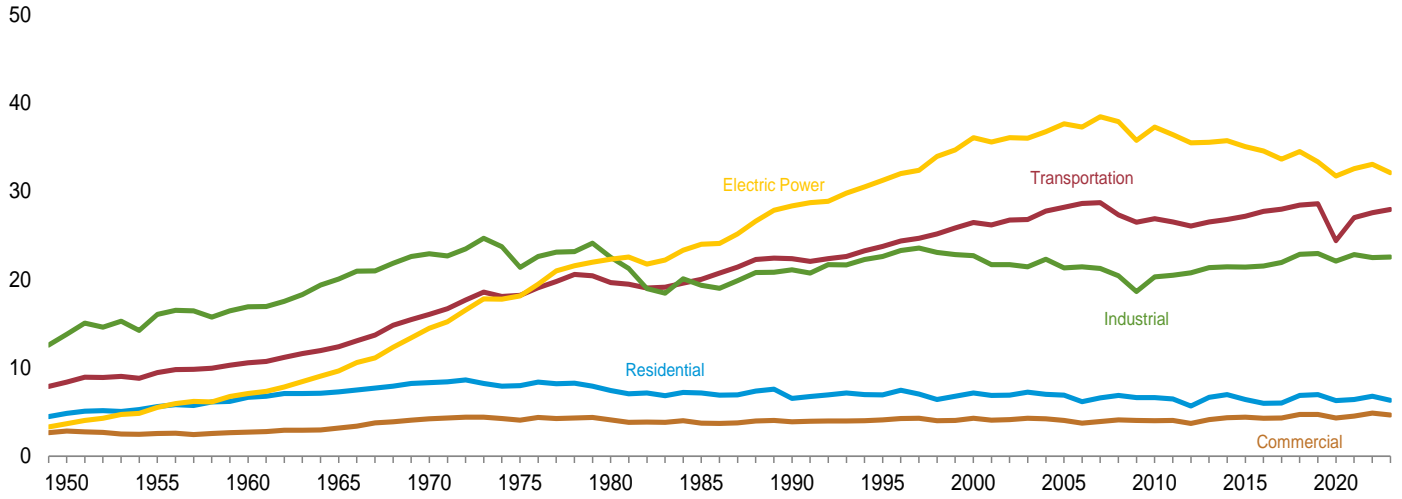
## **2. Energy Consumption By Sector**

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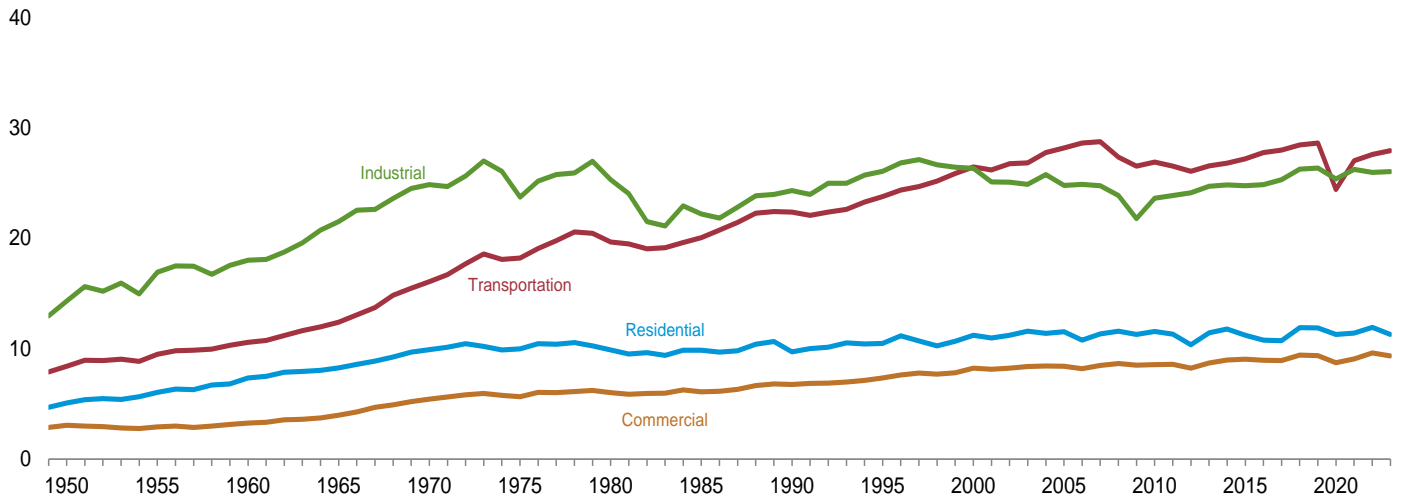
**Figure 2.1a Energy Consumption by Sector, 1949–2023**

(Quadrillion Btu)

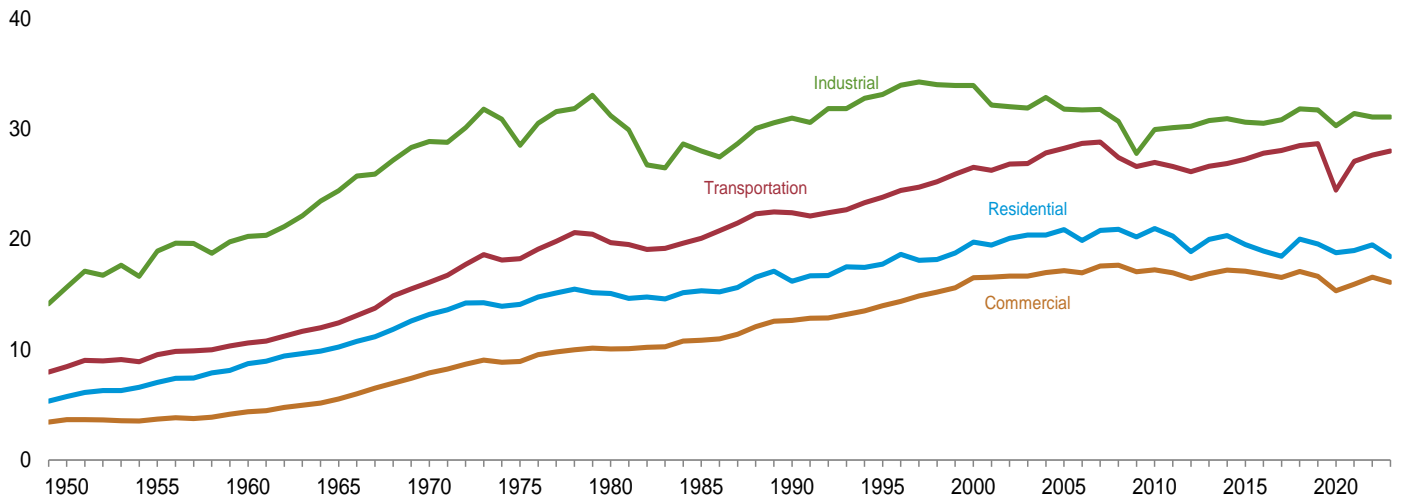
Primary Consumption by Sector



End-Use Consumption by End-Use Sector



Total Consumption by End-Use Sector

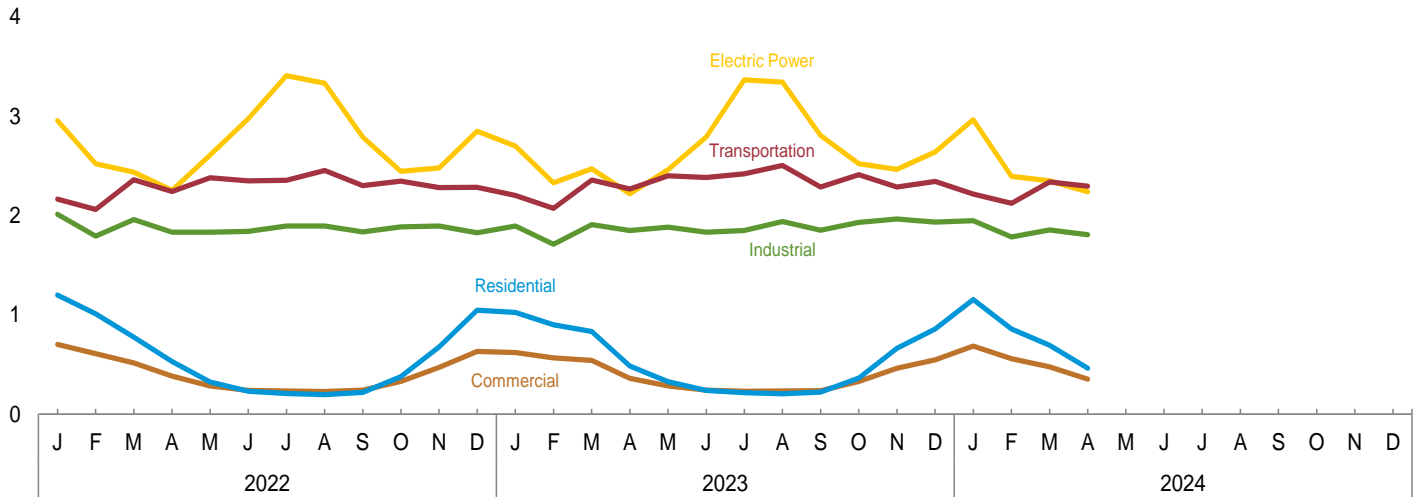


Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.  
 Source: Tables 2.1a–2.1b.

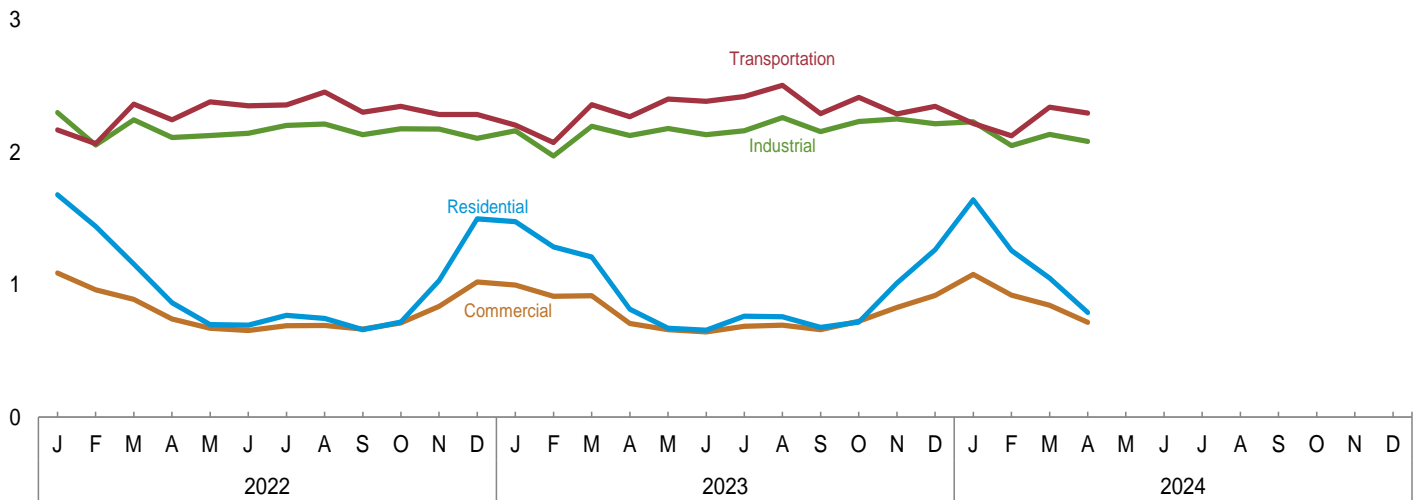
**Figure 2.1b Energy Consumption by Sector, Monthly**

(Quadrillion Btu)

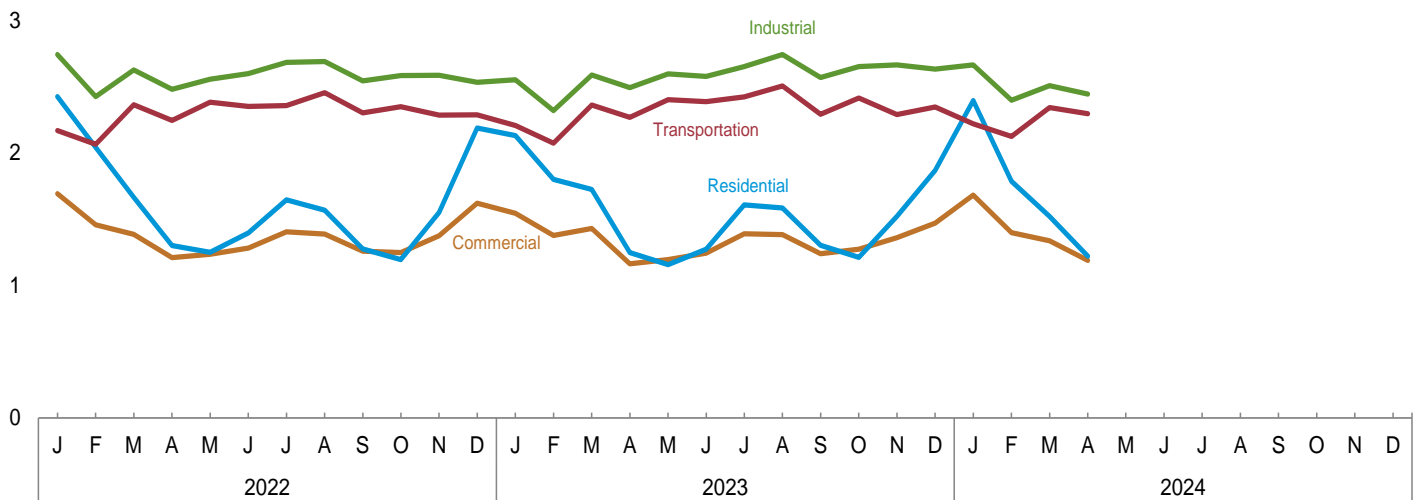
Primary Consumption by Sector



End-Use Consumption by End-Use Sector



Total Consumption by End-Use Sector



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.  
 Source: Tables 2.1a—2.1b.

**Table 2.1a Energy Consumption: Residential, Commercial, and Industrial Sectors**  
(Trillion Btu)

	End-Use Sectors														
	Residential					Commercial <sup>a</sup>					Industrial <sup>a</sup>				
	Primary <sup>b</sup>	Electricity <sup>c</sup>	End Use <sup>d</sup>	Electrical System Energy Losses <sup>e</sup>	Total <sup>f</sup>	Primary <sup>b</sup>	Electricity <sup>c</sup>	End Use <sup>d</sup>	Electrical System Energy Losses <sup>e</sup>	Total <sup>f</sup>	Primary <sup>b</sup>	Electricity <sup>c</sup>	End Use <sup>d</sup>	Electrical System Energy Losses <sup>e</sup>	Total <sup>f</sup>
1950 Total	4,830	246	5,076	661	5,736	2,834	225	3,059	604	3,663	13,820	500	14,319	1,340	15,659
1955 Total	5,608	438	6,046	990	7,036	2,561	350	2,911	791	3,702	16,046	887	16,933	2,005	18,938
1960 Total	6,651	687	7,339	1,387	8,726	2,723	543	3,266	1,096	4,362	16,923	1,107	18,030	2,234	20,264
1965 Total	7,280	993	8,273	1,950	10,223	3,177	789	3,966	1,549	5,514	20,063	1,463	21,526	2,873	24,399
1970 Total	8,323	1,591	9,914	3,264	13,178	4,237	1,201	5,438	2,464	7,902	22,918	1,948	24,866	3,995	28,862
1975 Total	7,990	2,007	9,997	4,103	14,100	4,059	1,598	5,657	3,267	8,924	21,378	2,346	23,725	4,797	28,522
1980 Total	7,440	2,448	9,888	5,194	15,082	4,105	1,906	6,011	4,044	10,055	22,527	2,781	25,308	5,900	31,209
1985 Total	7,149	2,709	9,858	5,486	15,344	3,732	2,351	6,084	4,762	10,845	19,363	2,855	22,218	5,782	28,000
1990 Total	6,552	3,153	9,705	6,501	16,206	3,892	2,860	6,753	5,898	12,650	21,100	3,226	24,326	6,652	30,978
1995 Total	6,934	3,557	10,491	7,256	17,747	4,099	3,252	7,352	6,634	13,985	22,622	3,455	26,077	7,048	33,125
2000 Total	7,156	4,069	11,225	8,507	19,732	4,277	3,956	8,233	8,271	16,504	22,721	3,631	26,352	7,592	33,945
2005 Total	6,901	4,638	11,538	9,340	20,879	4,051	4,351	8,401	8,762	17,163	21,322	3,477	24,799	7,003	31,803
2010 Total	6,635	4,933	11,568	9,419	20,987	4,014	4,539	8,553	8,666	17,219	20,317	3,314	23,631	6,328	29,958
2011 Total	6,465	4,855	11,319	8,967	20,286	4,051	4,531	8,583	8,370	16,952	20,494	3,382	23,876	6,247	30,123
2012 Total	5,672	4,690	10,362	8,510	18,871	3,702	4,528	8,230	8,216	16,446	20,765	3,363	24,128	6,103	30,230
2013 Total	6,669	4,759	11,428	8,554	19,983	4,134	4,562	8,696	8,200	16,897	21,357	3,362	24,719	6,043	30,762
2014 Total	6,976	4,801	11,778	8,560	20,338	4,356	4,614	8,969	8,226	17,195	21,449	3,404	24,853	6,068	30,921
2015 Total	6,423	4,791	11,214	8,306	19,520	4,404	4,643	9,047	8,050	17,097	21,411	3,366	24,777	5,836	30,613
2016 Total	5,968	4,815	10,783	8,146	18,929	4,281	4,665	8,945	7,893	16,838	21,549	3,333	24,882	5,639	30,520
2017 Total	6,017	4,704	10,721	7,751	18,471	4,318	4,616	8,934	7,606	16,540	21,951	3,358	25,309	5,534	30,843
2018 Total	6,885	5,013	11,897	8,126	20,023	4,715	4,715	9,429	7,643	17,072	22,864	3,414	26,278	5,535	31,813
2019 Total	6,974	4,914	11,889	7,686	19,575	4,732	4,643	9,375	7,263	16,638	22,946	3,420	26,366	5,349	31,716
2020 Total	6,296	4,997	11,293	7,502	18,795	4,335	4,393	8,728	6,595	15,322	22,103	3,272	25,376	4,913	30,288
2021 Total	6,409	5,017	11,426	7,564	18,991	4,547	4,533	9,080	6,834	15,914	22,833	3,414	26,247	5,147	31,394
<b>2022</b> January	1,200	479	1,679	747	2,426	702	388	1,089	604	1,693	2,012	287	2,299	446	2,745
February	1,011	428	1,439	605	2,044	610	352	961	498	1,459	1,793	262	2,055	371	2,426
March	775	380	1,155	512	1,667	517	371	888	499	1,387	1,958	286	2,244	385	2,628
April	531	332	863	438	1,301	384	357	741	470	1,210	1,831	281	2,112	370	2,482
May	324	376	699	552	1,251	284	386	670	566	1,236	1,833	294	2,127	431	2,558
June	229	465	694	704	1,398	239	415	654	628	1,282	1,840	303	2,143	458	2,601
July	208	561	768	878	1,647	232	457	689	716	1,406	1,893	309	2,202	484	2,685
August	197	547	744	824	1,568	228	463	691	698	1,389	1,895	318	2,213	479	2,691
September	219	441	660	618	1,277	241	424	665	593	1,259	1,836	295	2,132	414	2,545
October	377	340	717	480	1,197	329	382	711	539	1,249	1,887	290	2,177	409	2,586
November	678	352	1,030	523	1,552	470	365	835	541	1,376	1,895	279	2,174	414	2,588
December	1,048	448	1,496	693	2,190	632	389	1,020	601	1,621	1,825	279	2,105	432	2,536
<b>Total</b>	<b>6,793</b>	<b>5,150</b>	<b>11,943</b>	<b>7,553</b>	<b>19,496</b>	<b>4,868</b>	<b>4,746</b>	<b>9,614</b>	<b>6,961</b>	<b>16,574</b>	<b>22,500</b>	<b>3,482</b>	<b>25,981</b>	<b>5,107</b>	<b>31,088</b>
<b>2023</b> January	1,025	451	1,476	657	2,132	619	377	996	549	1,546	1,893	269	2,162	393	2,555
February	900	384	1,284	518	1,802	566	346	912	467	1,379	1,711	259	1,971	350	2,321
March	831	378	1,209	517	1,726	542	376	917	513	1,431	1,909	288	2,197	394	2,591
April	485	329	814	434	1,249	360	347	707	457	1,164	1,848	279	2,127	368	2,495
May	327	343	670	488	1,158	284	377	660	536	1,196	1,884	295	2,179	419	2,598
June	240	415	655	619	1,275	242	402	644	600	1,244	1,832	300	2,132	448	2,580
July	215	546	762	848	1,610	231	454	685	706	1,391	1,848	316	2,163	490	2,654
August	204	553	757	829	1,586	232	461	693	691	1,384	1,940	321	2,262	482	2,744
September	223	455	677	626	1,304	237	422	659	581	1,240	1,853	302	2,155	416	2,571
October	363	354	717	495	1,212	329	394	723	551	1,274	1,932	301	2,233	421	2,654
November	662	349	1,011	511	1,522	463	365	828	534	1,362	1,966	285	2,251	416	2,667
December	858	406	1,264	605	1,869	547	372	919	553	1,472	1,934	281	2,216	419	2,634
<b>Total</b>	<b>6,334</b>	<b>4,963</b>	<b>11,297</b>	<b>7,133</b>	<b>18,430</b>	<b>4,652</b>	<b>4,691</b>	<b>9,343</b>	<b>6,742</b>	<b>16,085</b>	<b>22,551</b>	<b>3,497</b>	<b>26,048</b>	<b>5,026</b>	<b>31,074</b>
<b>2024</b> January	1,155	487	1,642	755	2,397	685	392	1,077	607	1,683	1,948	282	2,230	437	2,667
February	857	402	1,258	530	1,788	558	363	921	479	1,399	1,784	266	2,050	351	2,400
March	695	355	1,050	472	1,522	476	369	845	492	1,337	1,854	281	2,135	374	2,510
April	462	328	790	431	1,221	353	361	715	474	1,189	1,806	277	2,082	363	2,445
<b>4-Month Total</b>	<b>3,169</b>	<b>1,572</b>	<b>4,741</b>	<b>2,187</b>	<b>6,928</b>	<b>2,071</b>	<b>1,486</b>	<b>3,557</b>	<b>2,051</b>	<b>5,608</b>	<b>7,391</b>	<b>1,106</b>	<b>8,497</b>	<b>1,525</b>	<b>10,022</b>
<b>2023 4-Month Total</b>	<b>3,241</b>	<b>1,542</b>	<b>4,783</b>	<b>2,126</b>	<b>6,909</b>	<b>2,087</b>	<b>1,445</b>	<b>3,532</b>	<b>1,986</b>	<b>5,518</b>	<b>7,361</b>	<b>1,096</b>	<b>8,457</b>	<b>1,504</b>	<b>9,961</b>
<b>2022 4-Month Total</b>	<b>3,516</b>	<b>1,620</b>	<b>5,136</b>	<b>2,302</b>	<b>7,438</b>	<b>2,212</b>	<b>1,467</b>	<b>3,679</b>	<b>2,070</b>	<b>5,749</b>	<b>7,594</b>	<b>1,116</b>	<b>8,710</b>	<b>1,572</b>	<b>10,282</b>

<sup>a</sup> Includes energy consumed at combined-heat-and-power (CHP) and electricity-only plants within the sector.

<sup>b</sup> Energy consumed in the form that it is first accounted for, before any transformation to secondary or tertiary forms of energy. See "Primary Energy Consumption" in Glossary.

<sup>c</sup> Electricity sold to the sector. See "Electricity Sales to Ultimate Customers" in Glossary.

<sup>d</sup> Sum of "Primary" and "Electricity." See "End-Use Energy Consumption" in Glossary.

<sup>e</sup> Calculated as the difference between primary energy consumed by the electric power sector and the energy content of electricity sales to ultimate customers sent to the end-use sectors. Allocated proportionally to the electricity sales to ultimate customers in each end-use sector. See Note 1, "Electrical System Energy Losses,"

at end of section.

<sup>f</sup> Equal to end-use energy consumption plus electrical system energy losses.

R=Revised.

Notes: • Data are estimates. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Other Energy Losses," at end of section. • See Note 3, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 2.2–2.4

**Table 2.1b Energy Consumption: Transportation Sector, Total End-Use Sectors, and Electric Power Sector (Trillion Btu)**

	End-Use Sectors										Electric Power Sector <sup>a</sup>	Primary Total <sup>h</sup>
	Transportation					Total						
	Primary <sup>b</sup>	Elec- tricity <sup>c</sup>	End Use <sup>d</sup>	Electrical System Energy Losses <sup>e</sup>	Total <sup>f</sup>	Primary <sup>b</sup>	Elec- tricity <sup>c</sup>	End Use <sup>d</sup>	Electrical System Energy Losses <sup>e</sup>	Total <sup>g</sup>		
1950 Total	8,383	23	8,407	62	8,469	29,867	994	30,861	2,666	33,527	3,661	33,527
1955 Total	9,474	20	9,494	45	9,539	33,690	1,695	35,385	3,830	39,215	5,525	39,215
1960 Total	10,560	10	10,570	21	10,591	36,856	2,348	39,204	4,738	43,942	7,086	43,942
1965 Total	12,399	10	12,409	20	12,428	42,919	3,254	46,173	6,392	52,565	9,646	52,565
1970 Total	16,062	11	16,073	22	16,094	51,540	4,751	56,291	9,745	66,036	14,495	66,036
1975 Total	18,211	10	18,221	21	18,241	51,638	5,961	57,599	12,188	69,787	18,149	69,788
1980 Total	19,659	11	19,670	23	19,694	53,731	7,146	60,878	15,162	76,040	22,309	76,038
1985 Total	20,042	14	20,056	29	20,084	50,285	7,929	58,214	16,059	74,273	23,988	74,268
1990 Total	22,366	16	22,382	33	22,415	53,910	9,255	63,165	19,084	82,250	28,340	82,256
1995 Total	23,757	17	23,774	35	23,808	57,412	10,281	67,694	20,973	88,666	31,254	88,668
2000 Total	26,456	18	26,474	38	26,512	60,610	11,674	72,284	24,409	96,693	36,083	96,694
2005 Total	28,179	26	28,205	52	28,257	60,452	12,491	72,944	25,158	98,101	37,649	98,101
2010 Total	26,894	26	26,920	50	26,970	57,860	12,812	70,672	24,463	95,135	37,275	95,142
2011 Total	26,523	26	26,549	48	26,598	57,533	12,794	70,327	23,632	93,959	36,426	93,966
2012 Total	26,057	25	26,082	45	26,127	56,195	12,606	68,801	22,874	91,675	35,480	91,677
2013 Total	26,541	26	26,567	47	26,614	58,701	12,709	71,410	22,845	94,255	35,554	94,253
2014 Total	26,802	26	26,828	47	26,875	59,583	12,845	72,428	22,902	95,329	35,747	95,335
2015 Total	27,182	26	27,208	45	27,253	59,420	12,826	72,246	22,237	94,483	35,063	94,484
2016 Total	27,741	26	27,767	43	27,810	59,539	12,838	72,376	21,720	94,097	34,558	94,092
2017 Total	27,979	26	28,005	42	28,047	60,265	12,704	72,969	20,932	93,901	33,636	93,902
2018 Total	28,435	26	28,461	42	28,504	62,898	13,168	76,066	21,346	97,412	34,514	97,405
2019 Total	28,602	26	28,628	41	28,669	63,255	13,004	76,259	20,339	96,598	33,343	96,603
2020 Total	24,394	22	24,417	34	24,450	57,128	12,685	69,813	19,043	88,856	31,728	88,852
2021 Total	27,015	22	27,037	33	27,070	60,804	12,986	73,790	19,578	93,368	32,564	93,363
<b>2022</b>												
January	2,166	2	2,168	3	2,171	6,080	1,155	7,235	1,800	9,035	2,955	9,036
February	2,062	2	2,064	3	2,067	5,476	1,044	6,520	1,477	7,996	2,520	7,995
March	2,361	2	2,363	3	2,366	5,612	1,038	6,650	1,399	8,049	2,437	8,044
April	2,242	2	2,244	2	2,246	4,987	972	5,960	1,280	7,239	2,252	7,235
May	2,379	2	2,381	3	2,384	4,820	1,057	5,877	1,552	7,429	2,609	7,427
June	2,349	2	2,351	3	2,353	4,658	1,184	5,842	1,793	7,635	2,977	7,637
July	2,355	2	2,357	3	2,360	4,688	1,328	6,016	2,081	8,097	3,409	8,103
August	2,453	2	2,455	3	2,457	4,773	1,329	6,102	2,003	8,105	3,333	8,111
September	2,300	2	2,302	3	2,304	4,596	1,162	5,758	1,627	7,385	2,789	7,386
October	2,346	2	2,347	3	2,350	4,938	1,014	5,952	1,431	7,383	2,445	7,380
November	2,282	2	2,284	3	2,287	5,325	997	6,323	1,480	7,803	2,478	7,800
December	2,284	2	2,286	3	2,289	5,789	1,118	6,907	1,730	8,637	2,848	8,636
<b>Total</b>	<b>27,580</b>	<b>23</b>	<b>27,602</b>	<b>33</b>	<b>27,635</b>	<b>61,741</b>	<b>13,400</b>	<b>75,140</b>	<b>19,653</b>	<b>94,794</b>	<b>33,053</b>	<b>94,791</b>
<b>2023</b>												
January	2,203	2	2,205	3	2,208	R 5,740	1,099	R 6,839	1,601	8,440	2,700	R 8,440
February	2,071	2	2,073	3	2,076	R 5,248	991	R 6,239	1,337	7,577	2,329	R 7,573
March	2,358	2	2,360	3	2,363	5,640	1,044	6,684	1,426	8,110	2,470	8,106
April	2,267	2	2,269	2	2,271	4,960	957	5,916	1,262	7,178	2,218	7,174
May	2,400	2	2,401	3	2,404	4,895	1,016	5,911	1,445	7,356	2,461	7,354
June	2,383	2	2,385	3	2,388	R 4,697	1,119	R 5,816	1,670	R 7,486	2,789	R 7,488
July	2,419	2	2,421	3	2,424	4,713	1,319	6,031	2,048	8,079	3,366	R 8,086
August	2,503	2	2,505	3	2,508	4,880	1,337	6,217	2,006	8,223	3,343	8,230
September	2,288	2	2,291	3	2,294	4,601	1,181	5,782	1,626	7,408	2,806	7,410
October	2,412	2	2,414	3	2,417	5,036	1,050	6,087	1,469	7,556	2,520	7,556
November	2,288	2	2,289	3	2,292	R 5,378	1,001	R 6,380	1,464	R 7,844	2,466	R 7,841
December	2,344	2	2,346	3	2,349	5,684	1,061	6,745	1,580	8,325	2,641	8,324
<b>Total</b>	<b>27,936</b>	<b>23</b>	<b>27,960</b>	<b>33</b>	<b>27,993</b>	<b>R 61,472</b>	<b>13,175</b>	<b>R 74,647</b>	<b>18,935</b>	<b>R 93,582</b>	<b>32,110</b>	<b>93,583</b>
<b>2024</b>												
January	2,215	2	2,217	3	2,221	R 6,003	1,164	R 7,166	1,801	R 8,968	2,965	R 8,971
February	2,123	2	R 2,124	2	2,127	R 5,321	1,032	R 6,353	1,361	R 7,714	2,394	R 7,711
March	2,339	2	2,341	3	2,344	R 5,364	1,007	R 6,371	1,341	R 7,712	2,348	R 7,706
April	2,294	2	2,295	2	2,298	4,915	968	5,883	1,270	7,153	2,238	7,148
<b>4-Month Total</b>	<b>8,970</b>	<b>8</b>	<b>8,978</b>	<b>11</b>	<b>8,989</b>	<b>21,602</b>	<b>4,171</b>	<b>25,774</b>	<b>5,774</b>	<b>31,548</b>	<b>9,945</b>	<b>31,537</b>
<b>2023 4-Month Total</b>	<b>8,899</b>	<b>7</b>	<b>8,907</b>	<b>10</b>	<b>8,917</b>	<b>21,588</b>	<b>4,091</b>	<b>25,678</b>	<b>5,627</b>	<b>31,305</b>	<b>9,717</b>	<b>31,292</b>
<b>2022 4-Month Total</b>	<b>8,832</b>	<b>8</b>	<b>8,839</b>	<b>11</b>	<b>8,850</b>	<b>22,155</b>	<b>4,210</b>	<b>26,365</b>	<b>5,955</b>	<b>32,320</b>	<b>10,165</b>	<b>32,310</b>

<sup>a</sup> Includes NAICS 22 electricity-only and CHP plants whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only. For 1989 forward, data are for electric utilities and independent power producers.

<sup>b</sup> Energy consumed in the form that it is first accounted for, before any transformation to secondary or tertiary forms of energy. See "Primary Energy Consumption" in Glossary.

<sup>c</sup> Electricity sold to the sector. See "Electricity Sales to Ultimate Customers" in Glossary.

<sup>d</sup> Sum of "Primary" and "Electricity." See "End-Use Energy Consumption" in Glossary.

<sup>e</sup> Calculated as the difference between primary energy consumed by the electric power sector and the energy content of electricity sales to ultimate customers sent to the end-use sectors. Allocated proportionally to the electricity sales to ultimate customers in each end-use sector. See Note 1, "Electrical System Energy Losses," at end of section.

<sup>f</sup> Equal to end-use energy consumption plus electrical system energy losses.

<sup>g</sup> Equal to the sum of total energy consumption in the four end-use sectors, which does not equal total primary energy consumption due to the use of sector-specific conversion factors for coal and natural gas.

<sup>h</sup> Total primary energy consumption. See Table 1.3.

R=Revised.

Notes: • Data are estimates, except for the electric power sector. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Other Energy Losses," at end of section. • See Note 3, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

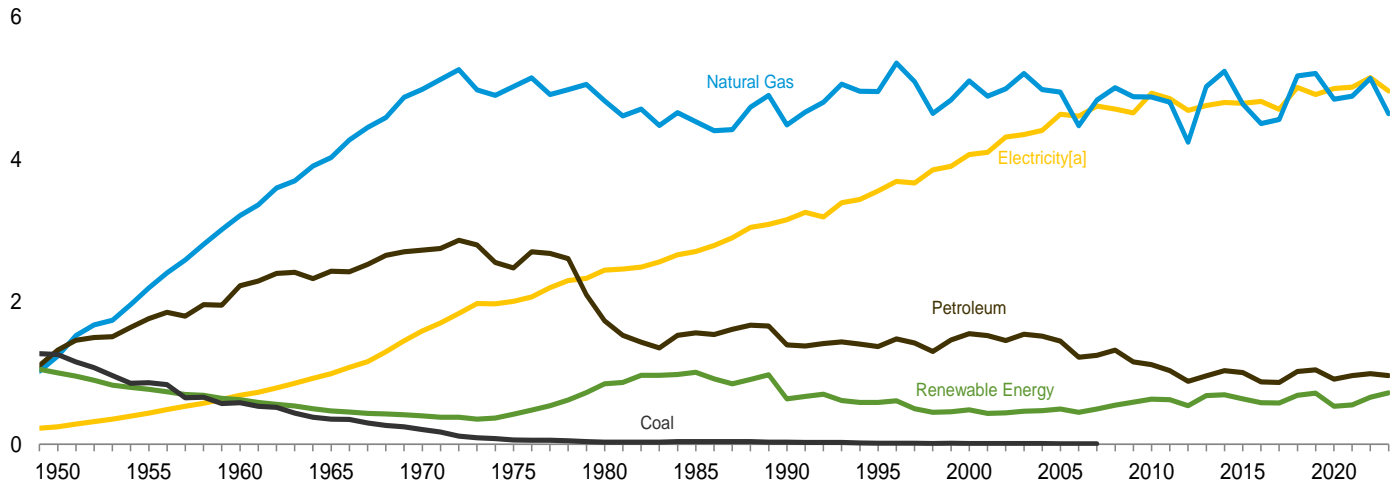
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: • **End-Use Sectors:** Tables 2.2–2.5. • **Electric Power Sector:** Table 2.6. • **Primary Total:** Table 1.3.

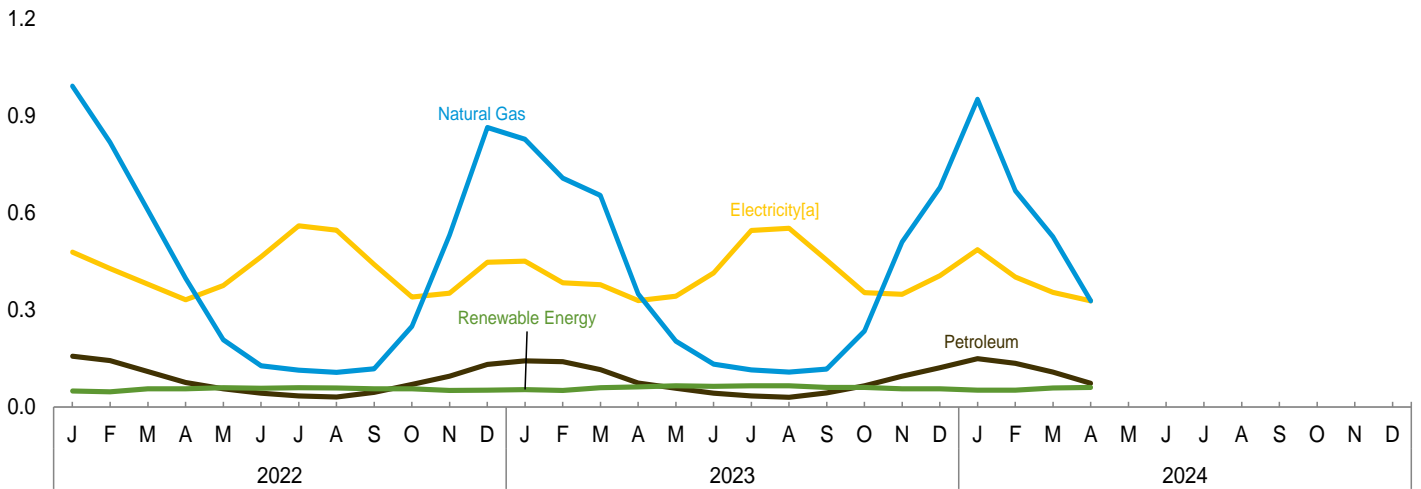
**Figure 2.2 Residential Sector Energy Consumption**

(Quadrillion Btu)

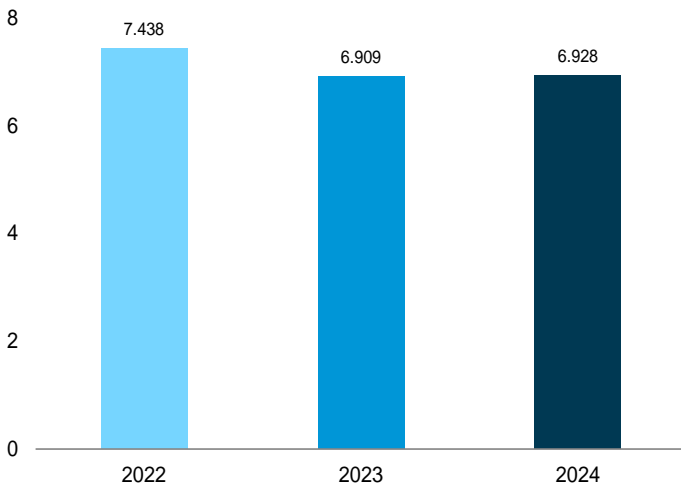
By Major Source, 1949–2023



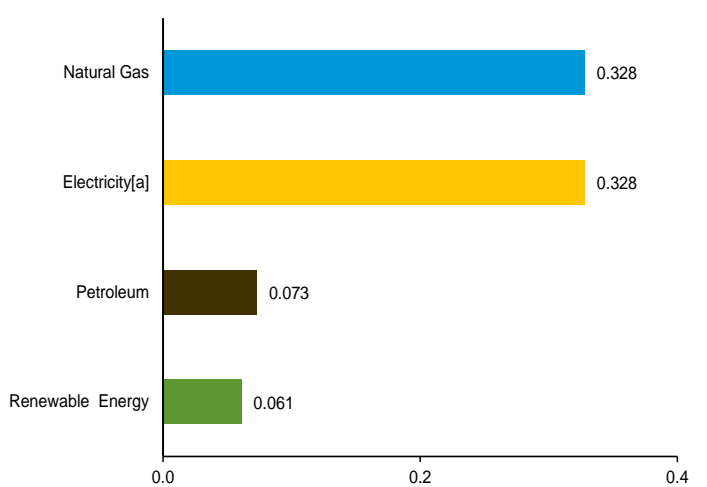
By Major Source, Monthly



Total, January–April



By Major Source, April 2024



[a] Electricity sales to ultimate customers.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.

Source: Table 2.2.

**Table 2.2 Residential Sector Energy Consumption**  
(Trillion Btu)

	End-Use Energy Consumption <sup>a</sup>												Electrical System Energy Losses <sup>g</sup>	Total
	Primary Consumption <sup>b</sup>								Total Primary	Electricity <sup>f</sup>	Total End Use			
	Fossil Fuels				Renewable Energy <sup>c</sup>									
	Coal	Natural Gas <sup>d</sup>	Petroleum	Total	Geothermal	Solar <sup>e</sup>	Bio-mass	Total						
1950 Total	1,261	1,240	1,322	3,824	NA	NA	1,006	1,006	4,830	246	5,076	661	5,736	
1955 Total	867	2,198	1,767	4,833	NA	NA	775	775	5,608	438	6,046	990	7,036	
1960 Total	585	3,212	2,228	6,025	NA	NA	627	627	6,651	687	7,339	1,387	8,726	
1965 Total	352	4,028	2,432	6,812	NA	NA	468	468	7,280	993	8,273	1,950	10,223	
1970 Total	209	4,987	2,726	7,922	NA	NA	401	401	8,323	1,591	9,914	3,264	13,178	
1975 Total	63	5,023	2,479	7,565	NA	NA	425	425	7,990	2,007	9,997	4,103	14,100	
1980 Total	31	4,825	1,734	6,590	NA	NA	850	850	7,440	2,448	9,888	5,194	15,082	
1985 Total	39	4,534	1,566	6,139	NA	NA	1,010	1,010	7,149	2,709	9,858	5,486	15,344	
1990 Total	31	4,487	1,395	5,912	6	55	580	640	6,552	3,153	9,705	6,501	16,206	
1995 Total	17	4,954	1,374	6,345	7	63	520	589	6,934	3,557	10,491	7,256	17,747	
2000 Total	11	5,105	1,554	6,670	9	57	420	486	7,156	4,069	11,225	8,507	19,732	
2005 Total	8	4,946	1,450	6,405	16	49	430	495	6,901	4,638	11,539	9,340	20,879	
2010 Total	NA	4,878	1,120	5,999	37	59	541	636	6,635	4,933	11,568	9,419	20,987	
2011 Total	NA	4,805	1,034	5,838	40	62	524	626	6,465	4,855	11,319	8,967	20,286	
2012 Total	NA	4,242	886	5,128	40	66	438	544	5,672	4,690	10,362	8,510	18,871	
2013 Total	NA	5,023	963	5,986	40	72	572	683	6,669	4,759	11,428	8,554	19,983	
2014 Total	NA	5,242	1,036	6,279	40	79	579	697	6,976	4,801	11,778	8,560	20,338	
2015 Total	NA	4,777	1,007	5,784	40	87	513	639	6,423	4,791	11,214	8,306	19,520	
2016 Total	NA	4,506	878	5,384	40	100	445	584	5,968	4,815	10,783	8,146	18,929	
2017 Total	NA	4,563	871	5,435	40	113	430	582	6,017	4,704	10,721	7,751	18,471	
2018 Total	NA	5,174	1,022	6,197	40	123	525	688	6,885	5,013	11,897	8,126	20,023	
2019 Total	NA	5,208	1,045	6,253	40	136	546	721	6,974	4,914	11,889	7,686	19,575	
2020 Total	NA	4,846	914	5,760	40	151	345	536	6,296	4,997	11,293	7,502	18,795	
2021 Total	NA	4,889	967	5,856	40	169	344	553	6,409	5,017	11,426	7,564	18,991	
2022 January	NA	993	157	1,149	3	11	36	50	1,200	479	1,679	747	2,426	
February	NA	819	144	964	3	12	32	47	1,011	428	1,439	605	2,044	
March	NA	609	110	719	3	17	36	56	775	380	1,155	512	1,667	
April	NA	398	76	474	3	18	35	56	531	332	863	438	1,301	
May	NA	208	56	264	3	20	36	60	324	376	699	552	1,251	
June	NA	128	43	171	3	20	35	58	229	465	694	704	1,398	
July	NA	114	34	148	3	21	36	60	208	561	768	878	1,647	
August	NA	107	31	137	3	20	36	59	197	547	744	824	1,568	
September	NA	118	45	163	3	18	35	56	219	441	660	618	1,277	
October	NA	250	70	321	3	17	36	56	377	340	717	480	1,197	
November	NA	532	95	626	3	13	35	51	678	352	1,030	523	1,552	
December	NA	865	132	996	3	12	36	52	1,048	448	1,496	693	2,190	
Total	NA	5,140	992	6,132	40	200	422	662	6,793	5,150	11,943	7,553	19,496	
2023 January	NA	828	143	971	3	13	38	54	1,025	451	1,476	657	2,132	
February	NA	708	140	848	3	14	35	51	900	384	1,284	518	1,802	
March	NA	655	116	771	3	19	38	60	831	378	1,209	517	1,726	
April	NA	350	74	423	3	21	37	62	485	329	814	434	1,249	
May	NA	204	58	262	3	24	38	66	327	343	670	488	1,158	
June	NA	133	43	177	3	24	37	64	240	415	655	619	1,275	
July	NA	115	34	149	3	25	38	66	215	546	762	848	1,610	
August	NA	108	30	138	3	24	38	66	204	553	757	829	1,586	
September	NA	117	44	161	3	21	37	61	223	455	677	626	1,304	
October	NA	235	66	302	3	20	38	61	363	354	717	495	1,212	
November	NA	511	95	605	3	16	37	56	662	349	1,011	511	1,522	
December	NA	679	122	802	3	15	38	56	858	406	1,264	605	1,869	
Total	NA	4,643	966	5,609	40	235	450	725	6,334	4,963	11,297	7,133	18,430	
2024 January	NA	952	150	1,103	3	15	34	52	1,155	487	1,642	755	2,397	
February	NA	669	135	805	3	17	32	52	857	402	1,258	530	1,788	
March	NA	527	108	636	3	22	34	59	695	355	1,050	472	1,522	
April	NA	328	73	401	3	25	33	61	462	328	790	431	1,221	
4-Month Total	NA	2,477	467	2,945	13	78	133	224	3,169	1,572	4,741	2,187	6,928	
2023 4-Month Total	NA	2,541	473	3,013	13	67	148	228	3,241	1,542	4,783	2,126	6,909	
2022 4-Month Total	NA	2,819	487	3,307	13	58	139	210	3,516	1,620	5,136	2,302	7,438	

<sup>a</sup> Sum of "Total Primary" and "Electricity." See "End-Use Energy Consumption" in Glossary.

<sup>b</sup> Energy consumed in the form that it is first accounted for, before any transformation to secondary or tertiary forms of energy. See "Primary Energy Consumption" in Glossary.

<sup>c</sup> See Table 10.2a for notes on series components.

<sup>d</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>e</sup> Includes small-scale solar photovoltaic (PV) electricity and solar thermal energy in the residential sector. See Tables 10.2a and 10.5.

<sup>f</sup> Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>g</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity sales to ultimate customers.

Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales to ultimate customers. See Note 1, "Electrical System Energy Losses," at end of section.

R=Revised. NA=Not available.

Notes: • Data are estimates, except for electricity sales to ultimate customers. • See Note 2, "Other Energy Losses," at end of section. • See Note 3, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

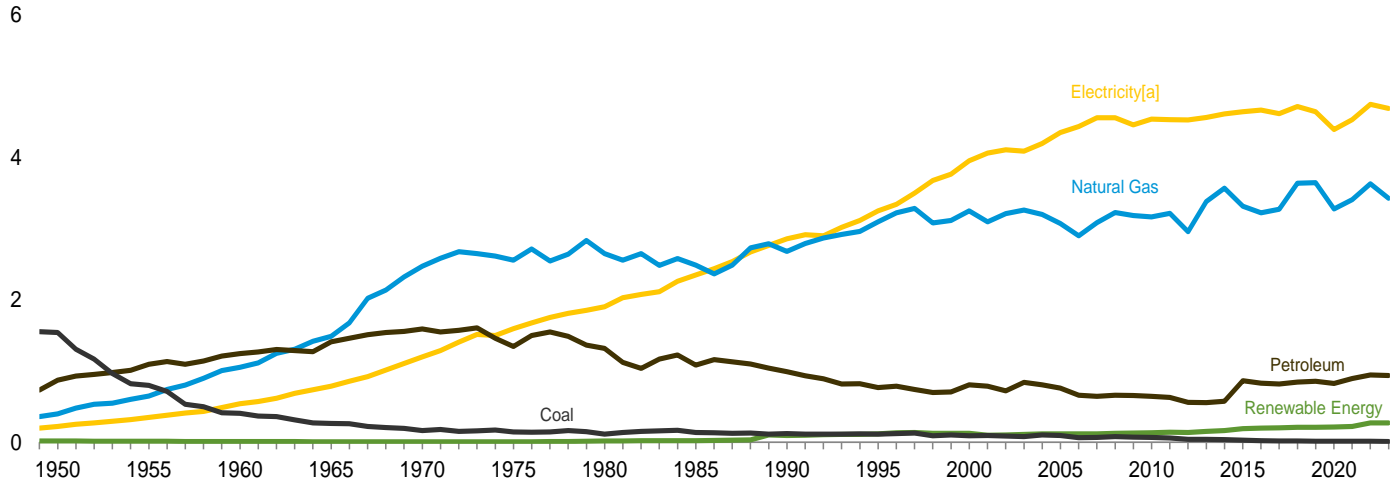
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

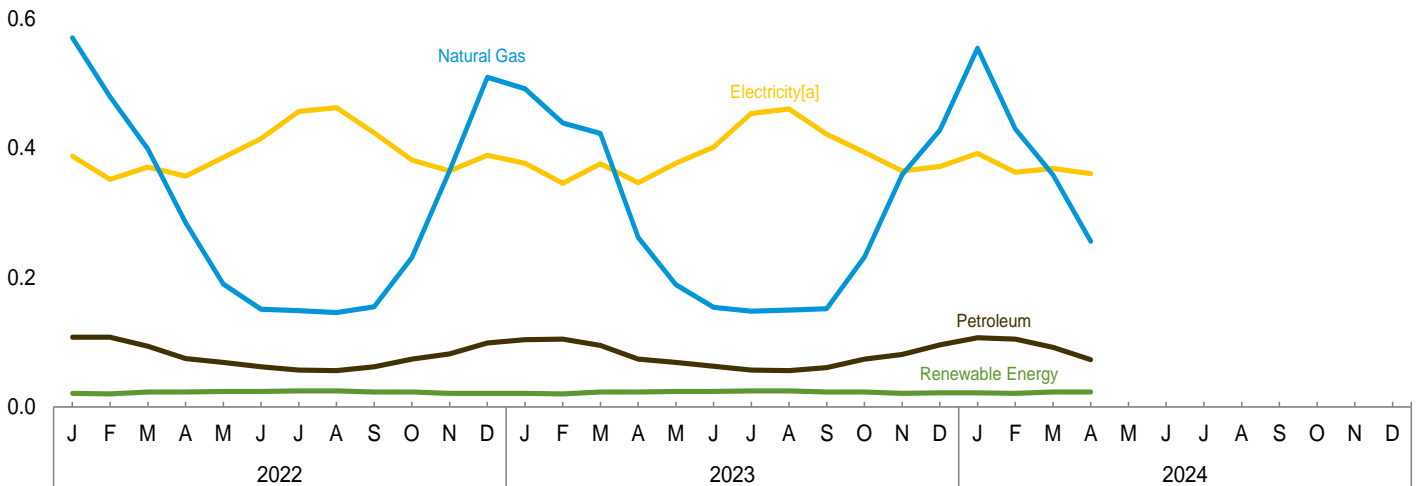
**Figure 2.3 Commercial Sector Energy Consumption**

(Quadrillion Btu)

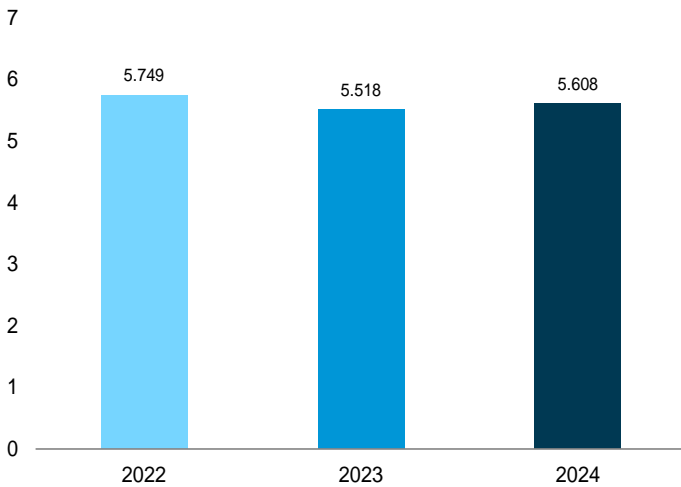
By Major Source, 1949–2023



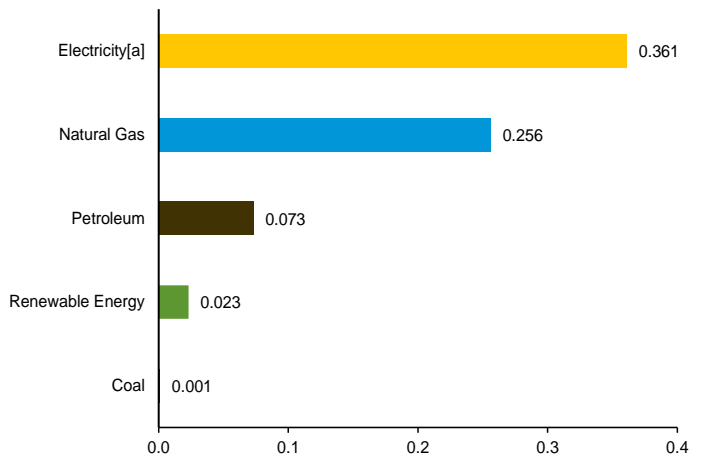
By Major Source, Monthly



Total, January–April



By Major Source, April 2024



[a] Electricity sales to ultimate customers.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.

Source: Table 2.3.



**Table 2.3 Commercial Sector Energy Consumption**  
(Trillion Btu)

	End-Use Energy Consumption <sup>a</sup>													Electrical System Energy Losses <sup>i</sup>	Total
	Primary Consumption <sup>b</sup>										Total Primary	Elec- tricity <sup>h</sup>	Total End Use		
	Fossil Fuels				Renewable Energy <sup>c</sup>										
	Coal	Natural Gas <sup>d</sup>	Petro- leum <sup>e</sup>	Total	Hydro- electric Power <sup>f</sup>	Geo- thermal	Solar <sup>g</sup>	Wind	Bio- mass	Total					
<b>1950 Total</b> .....	1,542	401	872	2,815	NA	NA	NA	NA	19	19	2,834	225	3,059	604	3,663
<b>1955 Total</b> .....	801	651	1,095	2,547	NA	NA	NA	NA	15	15	2,561	350	2,911	791	3,702
<b>1960 Total</b> .....	407	1,056	1,248	2,711	NA	NA	NA	NA	12	12	2,723	543	3,266	1,096	4,362
<b>1965 Total</b> .....	265	1,490	1,413	3,168	NA	NA	NA	NA	9	9	3,177	789	3,966	1,549	5,514
<b>1970 Total</b> .....	165	2,473	1,592	4,229	NA	NA	NA	NA	8	8	4,237	1,201	5,438	2,464	7,902
<b>1975 Total</b> .....	147	2,558	1,346	4,051	NA	NA	NA	NA	8	8	4,059	1,598	5,657	3,267	8,924
<b>1980 Total</b> .....	115	2,651	1,318	4,084	NA	NA	NA	NA	21	21	4,105	1,906	6,011	4,044	10,055
<b>1985 Total</b> .....	137	2,488	1,083	3,708	NA	NA	NA	NA	24	24	3,732	2,351	6,084	4,762	10,845
<b>1990 Total</b> .....	124	2,680	991	3,795	(s)	3	(s)	—	94	97	3,892	2,860	6,753	5,898	12,650
<b>1995 Total</b> .....	117	3,096	769	3,982	(s)	5	(s)	—	113	118	4,099	3,252	7,352	6,634	13,985
<b>2000 Total</b> .....	92	3,252	807	4,150	(s)	8	(s)	—	119	127	4,277	3,956	8,233	8,271	16,504
<b>2005 Total</b> .....	97	3,073	761	3,931	(s)	14	1	—	105	120	4,051	4,351	8,401	8,762	17,163
<b>2010 Total</b> .....	70	3,165	647	3,881	(s)	19	4	(s)	111	134	4,014	4,539	8,553	8,666	17,219
<b>2011 Total</b> .....	62	3,216	632	3,910	(s)	20	7	(s)	115	141	4,051	4,531	8,583	8,370	16,952
<b>2012 Total</b> .....	44	2,960	560	3,563	(s)	20	11	(s)	108	139	3,702	4,528	8,230	8,216	16,446
<b>2013 Total</b> .....	41	3,380	558	3,979	(s)	20	15	(s)	120	155	4,134	4,562	8,696	8,200	16,897
<b>2014 Total</b> .....	40	3,572	578	4,190	(s)	20	19	(s)	127	166	4,356	4,614	8,969	8,226	17,195
<b>2015 Total</b> .....	31	3,316	864	4,211	(s)	20	21	(s)	152	193	4,404	4,643	9,047	8,050	17,097
<b>2016 Total</b> .....	24	3,224	832	4,079	1	20	23	(s)	158	201	4,281	4,665	8,945	7,893	16,838
<b>2017 Total</b> .....	21	3,273	820	4,113	1	20	28	(s)	156	205	4,318	4,616	8,934	7,606	16,540
<b>2018 Total</b> .....	19	3,638	845	4,502	1	20	35	1	156	213	4,715	4,715	9,429	7,643	17,072
<b>2019 Total</b> .....	17	3,647	857	4,521	1	21	40	1	149	211	4,732	4,643	9,375	7,263	16,638
<b>2020 Total</b> .....	15	3,279	827	4,120	1	21	46	1	147	215	4,335	4,393	8,728	6,595	15,322
<b>2021 Total</b> .....	15	3,409	898	4,322	1	21	54	1	149	225	4,547	4,533	9,080	6,834	15,914
<b>2022</b> .....															
January .....	2	571	108	680	(s)	2	4	(s)	16	21	702	388	1,089	604	1,693
February .....	2	480	108	590	(s)	2	4	(s)	15	20	610	352	961	498	1,459
March .....	1	399	94	494	(s)	2	5	(s)	16	23	517	371	888	499	1,387
April .....	1	285	75	361	(s)	2	6	(s)	15	23	384	357	741	470	1,210
May .....	1	190	69	260	(s)	2	6	(s)	16	24	284	386	670	566	1,236
June .....	1	151	62	215	(s)	2	6	(s)	16	24	239	415	654	628	1,282
July .....	1	149	57	207	(s)	2	7	(s)	16	25	232	457	689	716	1,406
August .....	1	146	56	204	(s)	2	6	(s)	16	25	228	463	691	698	1,389
September .....	1	155	62	218	(s)	2	6	(s)	15	23	241	424	665	593	1,259
October .....	1	231	74	307	(s)	2	5	(s)	16	23	329	382	711	539	1,249
November .....	1	365	82	449	(s)	2	4	(s)	16	21	470	365	835	541	1,376
December .....	2	510	99	610	(s)	2	4	(s)	16	21	632	389	1,020	601	1,621
<b>Total</b> .....	<b>14</b>	<b>3,633</b>	<b>947</b>	<b>4,595</b>	<b>1</b>	<b>20</b>	<b>63</b>	<b>1</b>	<b>190</b>	<b>274</b>	<b>4,868</b>	<b>4,746</b>	<b>9,614</b>	<b>6,961</b>	<b>16,574</b>
<b>2023</b> .....															
January .....	1	492	104	R 598	(s)	2	4	(s)	16	21	619	377	996	549	R 1,546
February .....	1	439	105	546	(s)	2	4	(s)	14	20	566	346	912	467	1,379
March .....	1	423	95	519	NM	2	6	(s)	15	23	542	376	917	513	1,431
April .....	1	262	74	337	NM	2	6	(s)	15	23	360	347	707	457	1,164
May .....	1	189	69	259	NM	2	7	(s)	15	24	284	377	660	536	1,196
June .....	1	154	63	218	NM	2	7	(s)	15	24	242	402	644	600	1,244
July .....	1	148	57	206	NM	2	7	(s)	16	25	231	454	685	706	1,391
August .....	1	150	56	207	NM	2	7	(s)	16	25	232	461	693	691	1,384
September .....	1	152	61	214	NM	2	6	(s)	15	23	237	422	659	581	1,240
October .....	1	232	74	306	NM	2	5	(s)	16	23	329	394	723	551	1,274
November .....	1	359	81	441	(s)	2	4	(s)	15	21	463	365	828	534	1,362
December .....	1	428	96	526	NM	2	4	(s)	16	22	547	372	919	553	1,472
<b>Total</b> .....	<b>12</b>	<b>3,428</b>	<b>937</b>	<b>R 4,377</b>	<b>1</b>	<b>20</b>	<b>69</b>	<b>1</b>	<b>185</b>	<b>275</b>	<b>R 4,652</b>	<b>4,691</b>	<b>R 9,343</b>	<b>6,742</b>	<b>16,085</b>
<b>2024</b> .....															
January .....	2	555	107	663	(s)	2	4	(s)	16	22	685	392	1,077	607	1,683
February .....	R 1	430	105	537	NM	2	5	(s)	15	21	558	363	921	479	R 1,399
March .....	1	359	92	452	NM	2	7	(s)	15	23	476	369	845	492	1,337
April .....	1	256	73	330	NM	2	7	(s)	15	23	353	361	715	474	1,189
<b>4-Month Total</b> .....	<b>5</b>	<b>1,600</b>	<b>377</b>	<b>1,982</b>	<b>(s)</b>	<b>7</b>	<b>23</b>	<b>(s)</b>	<b>60</b>	<b>90</b>	<b>2,071</b>	<b>1,486</b>	<b>3,557</b>	<b>2,051</b>	<b>5,608</b>
<b>2023 4-Month Total</b> .....	<b>5</b>	<b>1,616</b>	<b>378</b>	<b>1,999</b>	<b>(s)</b>	<b>6</b>	<b>21</b>	<b>(s)</b>	<b>60</b>	<b>87</b>	<b>2,087</b>	<b>1,445</b>	<b>3,532</b>	<b>1,986</b>	<b>5,518</b>
<b>2022 4-Month Total</b> .....	<b>5</b>	<b>1,735</b>	<b>385</b>	<b>2,125</b>	<b>(s)</b>	<b>6</b>	<b>19</b>	<b>(s)</b>	<b>61</b>	<b>87</b>	<b>2,212</b>	<b>1,467</b>	<b>3,679</b>	<b>2,070</b>	<b>5,749</b>

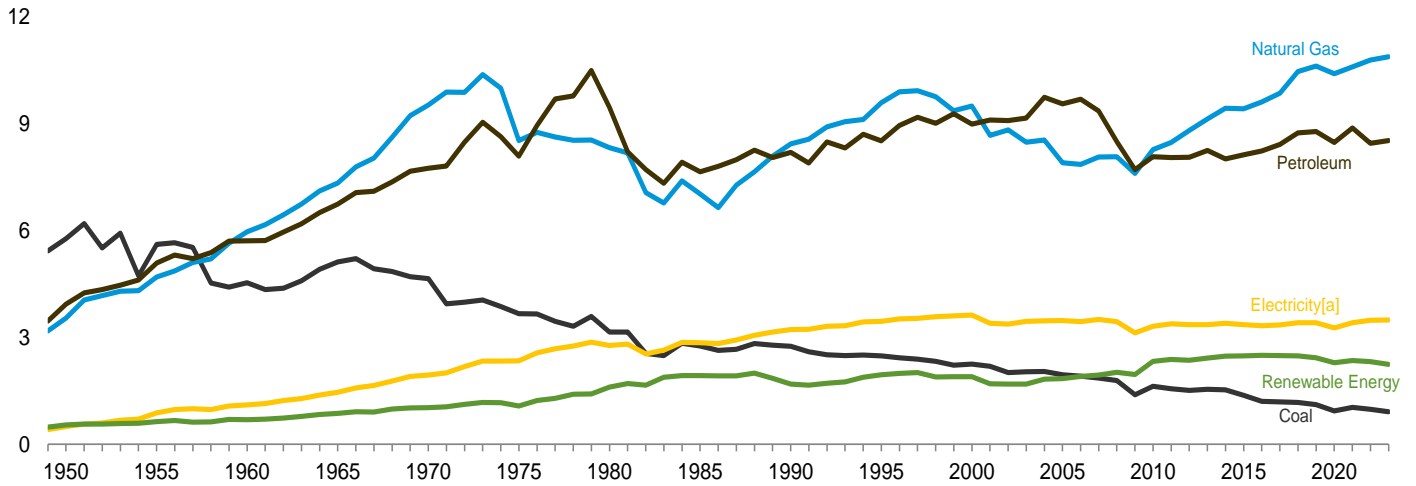
<sup>a</sup> Sum of "Total Primary" and "Electricity." See "End-Use Energy Consumption" in Glossary.  
<sup>b</sup> Energy consumed in the form that it is first accounted for, before any transformation to secondary or tertiary forms of energy. See "Primary Energy Consumption" in Glossary.  
<sup>c</sup> See Table 10.2a for notes on series components.  
<sup>d</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.  
<sup>e</sup> Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."  
<sup>f</sup> Conventional hydroelectric power.  
<sup>g</sup> Includes small-scale solar photovoltaic (PV) electricity and solar thermal energy in the commercial sector. See Tables 10.2a and 10.5.  
<sup>h</sup> Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.  
<sup>i</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity sales to ultimate customers. Total losses are allocated to the end-use sectors in proportion to each sector's

share of total electricity sales to ultimate customers. See Note 1, "Electrical System Energy Losses," at end of section.  
 R=Revised. NA=Not available. NM=Not meaningful. —=No data reported. (s)=Less than 0.5 trillion Btu.  
 Notes: • Data are estimates, except for coal totals beginning in 2008; hydroelectric power; solar; wind; and electricity sales to ultimate customers beginning in 1979. • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Other Energy Losses," at end of section. • See Note 3, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.  
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.  
 Sources: See end of section.

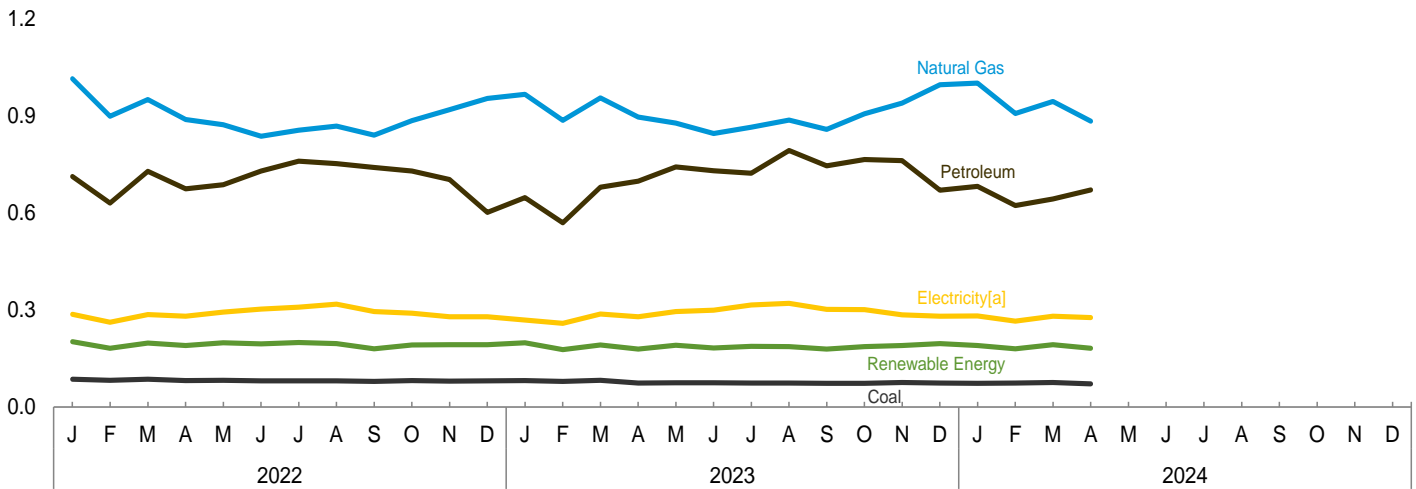
**Figure 2.4 Industrial Sector Energy Consumption**

(Quadrillion Btu)

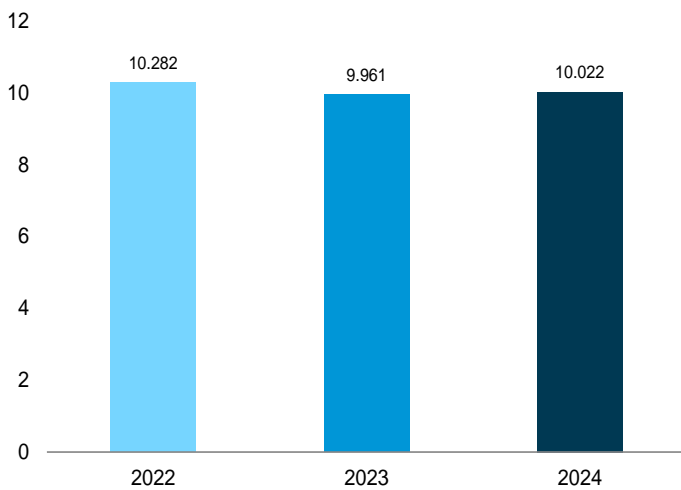
By Major Source, 1949–2023



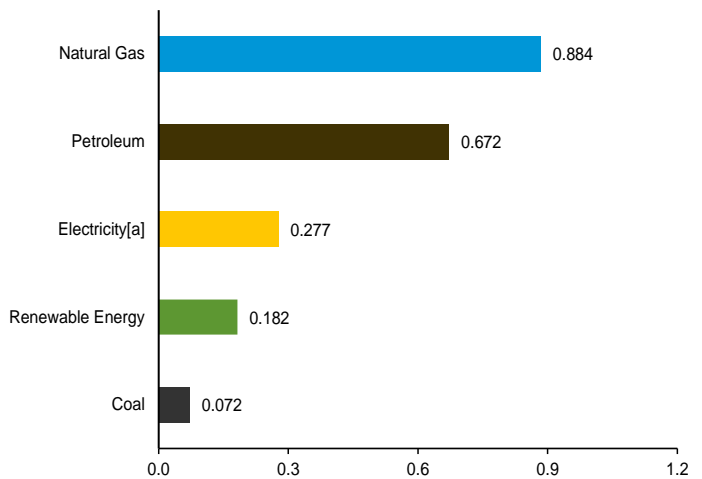
By Major Source, Monthly



Total, January–April



By Major Source, April 2024



[a] Electricity sales to ultimate customers.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.

Source: Table 2.4.

**Table 2.4 Industrial Sector Energy Consumption**  
(Trillion Btu)

	End-Use Energy Consumption <sup>a</sup>													Electrical System Energy Losses <sup>k</sup>	Total
	Primary Consumption <sup>b</sup>										Total Primary	Elec- tricity <sup>j</sup>	Total End Use		
	Fossil Fuels <sup>c</sup>				Renewable Energy <sup>d</sup>										
	Coal	Natural Gas <sup>e</sup>	Petro- leum <sup>f</sup>	Total <sup>g</sup>	Hydro- electric Power <sup>h</sup>	Geo- thermal	Solar <sup>i</sup>	Wind	Bio- mass	Total					
1950 Total	5,781	3,546	3,943	13,271	17	NA	NA	NA	532	549	13,820	500	14,319	1,340	15,659
1955 Total	5,620	4,701	5,093	15,404	11	NA	NA	NA	631	642	16,046	887	16,933	2,005	18,938
1960 Total	4,543	5,973	5,720	16,231	12	NA	NA	NA	680	692	16,923	1,107	18,030	2,234	20,264
1965 Total	5,127	7,339	6,750	19,197	11	NA	NA	NA	855	866	20,063	1,463	21,526	2,873	24,399
1970 Total	4,656	9,536	7,754	21,888	11	NA	NA	NA	1,019	1,030	22,918	1,948	24,866	3,995	28,862
1975 Total	3,667	8,532	8,092	20,304	11	NA	NA	NA	1,063	1,074	21,378	2,346	23,725	4,797	28,522
1980 Total	3,155	8,333	9,464	20,916	11	NA	NA	NA	1,600	1,611	22,527	2,781	25,308	5,900	31,209
1985 Total	2,760	7,032	7,656	17,434	11	NA	NA	NA	1,918	1,928	19,363	2,855	22,218	5,782	28,000
1990 Total	2,756	8,443	8,200	19,403	10	2	(s)	-	1,684	1,696	21,100	3,226	24,326	6,652	30,978
1995 Total	2,488	9,592	8,525	20,666	18	3	(s)	-	1,934	1,955	22,622	3,455	26,077	7,048	33,125
2000 Total	2,256	9,500	8,999	20,821	14	4	(s)	-	1,881	1,900	22,721	3,631	26,352	7,592	33,945
2005 Total	1,954	7,907	9,567	19,472	11	4	(s)	-	1,834	1,849	21,322	3,477	24,799	7,003	31,803
2010 Total	1,631	8,278	8,083	17,986	6	4	1	-	2,320	2,331	20,317	3,314	23,631	6,328	29,958
2011 Total	1,561	8,481	8,055	18,107	6	4	1	(s)	2,375	2,387	20,494	3,382	23,876	6,247	30,123
2012 Total	1,513	8,819	8,066	18,401	8	4	2	(s)	2,349	2,363	20,765	3,363	24,128	6,103	30,230
2013 Total	1,546	9,140	8,260	18,930	12	4	3	(s)	2,407	2,427	21,357	3,362	24,719	6,043	30,762
2014 Total	1,530	9,441	8,021	18,971	4	4	4	(s)	2,466	2,478	21,449	3,404	24,853	6,068	30,921
2015 Total	1,380	9,426	8,135	18,923	5	4	5	(s)	2,474	2,489	21,411	3,366	24,777	5,836	30,613
2016 Total	1,205	9,617	8,243	19,046	4	4	7	(s)	2,487	2,503	21,549	3,333	24,882	5,639	30,520
2017 Total	1,195	9,864	8,427	19,458	5	4	8	(s)	2,475	2,493	21,951	3,358	25,309	5,534	30,843
2018 Total	1,180	10,474	8,747	20,375	4	4	9	(s)	2,471	2,489	22,864	3,414	26,278	5,535	31,813
2019 Total	1,117	10,630	8,785	20,511	4	4	11	(s)	2,416	2,435	22,946	3,420	26,366	5,349	31,716
2020 Total	938	10,410	8,476	19,811	3	4	12	2	2,270	2,292	22,103	3,272	25,376	4,913	30,288
2021 Total	1,036	10,603	8,885	20,476	3	4	14	(s)	2,336	2,357	22,833	3,414	26,247	5,147	31,394
2022 January	86	1,016	713	1,810	(s)	(s)	1	(s)	201	202	2,012	287	2,299	446	2,745
February	83	900	631	1,611	(s)	(s)	1	(s)	180	182	1,793	262	2,055	371	2,426
March	86	951	729	1,761	(s)	(s)	1	(s)	196	198	1,958	286	2,244	385	2,628
April	82	889	675	1,641	(s)	(s)	1	(s)	188	190	1,831	281	2,112	370	2,482
May	83	873	688	1,634	(s)	(s)	2	(s)	196	199	1,833	294	2,127	431	2,558
June	81	838	730	1,645	(s)	(s)	2	(s)	193	195	1,840	303	2,143	458	2,601
July	81	856	761	1,693	(s)	(s)	2	(s)	198	200	1,893	309	2,202	484	2,685
August	81	869	753	1,698	(s)	(s)	2	(s)	194	196	1,895	318	2,213	479	2,691
September	79	841	741	1,656	(s)	(s)	1	(s)	178	180	1,836	295	2,132	414	2,545
October	82	886	730	1,695	(s)	(s)	1	(s)	190	192	1,887	290	2,177	409	2,586
November	80	920	704	1,701	(s)	(s)	1	(s)	192	193	1,895	279	2,174	414	2,588
December	81	955	602	1,632	(s)	(s)	1	(s)	191	193	1,825	279	2,105	432	2,536
Total	987	10,793	8,455	20,180	3	4	15	(s)	2,297	2,320	22,500	3,482	25,981	5,107	31,088
2023 January	82	967	648	1,694	(s)	(s)	1	(s)	197	199	1,893	269	2,162	393	2,555
February	79	887	570	1,534	(s)	(s)	1	(s)	176	178	1,711	259	1,971	350	2,321
March	83	956	680	1,717	(s)	(s)	1	(s)	190	192	1,909	288	2,197	394	2,591
April	74	897	699	1,669	(s)	(s)	2	(s)	177	179	1,848	279	2,127	368	2,495
May	75	878	743	1,693	(s)	(s)	2	(s)	189	191	1,884	295	2,179	419	2,598
June	75	846	731	1,649	(s)	(s)	2	(s)	181	183	1,832	300	2,132	448	2,580
July	74	866	723	1,659	(s)	(s)	2	(s)	186	188	1,848	316	2,163	490	2,654
August	74	888	794	1,753	(s)	(s)	2	(s)	185	187	1,940	321	2,262	482	2,744
September	73	859	746	1,674	(s)	(s)	1	(s)	177	179	1,853	302	2,155	416	2,571
October	73	907	766	1,745	(s)	(s)	1	(s)	185	187	1,932	301	2,233	421	2,654
November	76	940	762	1,776	(s)	(s)	1	(s)	188	190	1,966	285	2,251	416	2,667
December	74	997	671	1,738	(s)	(s)	1	(s)	195	196	1,934	281	2,216	419	2,634
Total	913	10,889	8,532	20,301	3	4	16	(s)	2,225	2,249	22,551	3,497	26,048	5,026	31,074
2024 January	R 73	R 1,002	683	R 1,758	(s)	(s)	1	(s)	188	190	R 1,948	282	R 2,230	437	R 2,667
February	R 74	R 908	623	R 1,604	(s)	(s)	1	(s)	178	180	R 1,784	266	R 2,050	351	R 2,400
March	R 76	R 945	R 644	R 1,661	(s)	(s)	2	(s)	191	193	R 1,854	281	R 2,135	374	R 2,510
April	72	884	672	1,623	(s)	(s)	2	(s)	180	182	1,806	277	2,082	363	2,445
4-Month Total	295	3,740	2,622	6,646	1	1	5	(s)	737	745	7,391	1,106	8,497	1,525	10,022
2023 4-Month Total	319	3,707	2,596	6,613	1	1	5	(s)	740	747	7,361	1,096	8,457	1,504	9,961
2022 4-Month Total	338	3,756	2,747	6,823	1	1	4	(s)	764	772	7,594	1,116	8,710	1,572	10,282

<sup>a</sup> Sum of "Total Primary" and "Electricity." See "End-Use Energy Consumption" in Glossary.

<sup>b</sup> Energy consumed in the form that it is first accounted for, before any transformation to secondary or tertiary forms of energy. See "Primary Energy Consumption" in Glossary.

<sup>c</sup> Includes non-combustion use of fossil fuels.

<sup>d</sup> See Table 10.2b for notes on series components and estimation.

<sup>e</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels.

<sup>f</sup> See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>g</sup> Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."

<sup>h</sup> Includes coal coke net imports, which are not separately displayed. See Tables 1.4a and 1.4b.

<sup>i</sup> Conventional hydroelectric power.

<sup>j</sup> Includes both utility-scale and small-scale solar photovoltaic (PV) electricity net generation in the industrial sector. See Tables 10.2b and 10.5.

<sup>k</sup> Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>l</sup> Total losses are calculated as the primary energy consumed by the electric

power sector minus the energy content of electricity sales to ultimate customers. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales to ultimate customers. See Note 1, "Electrical System Energy Losses," at end of section.

R=Revised. NA=Not available. --=No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates, except for coal totals; hydroelectric power in 1949–1978 and 1989 forward; solar; wind; and electricity sales to ultimate customers.

• The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Other Energy Losses," at end of section. • See Note 3, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

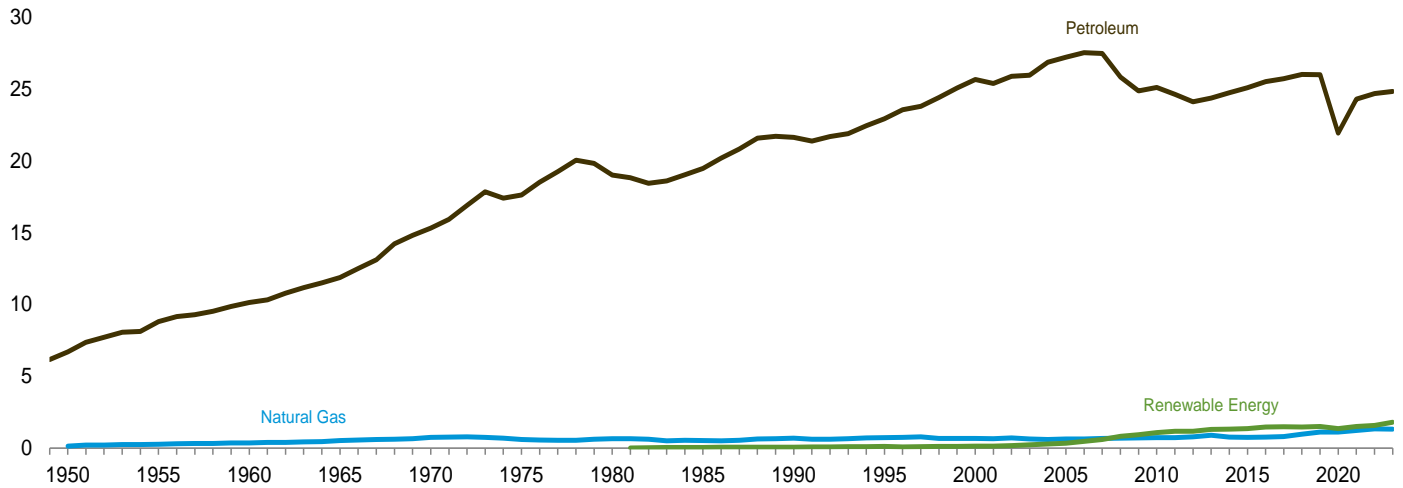
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

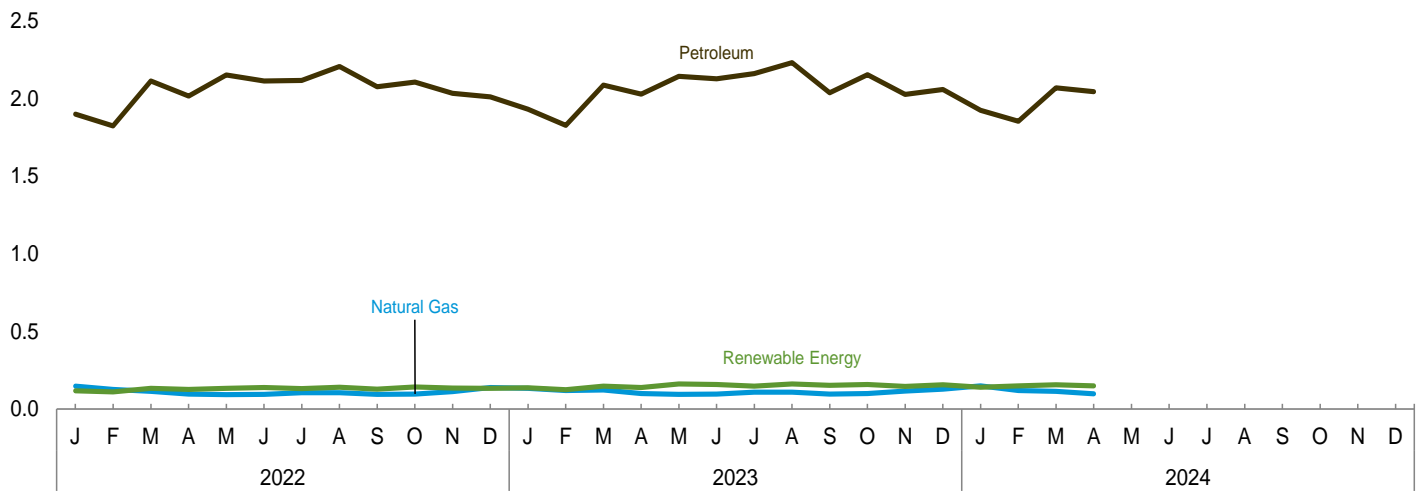
**Figure 2.5 Transportation Sector Energy Consumption**

(Quadrillion Btu)

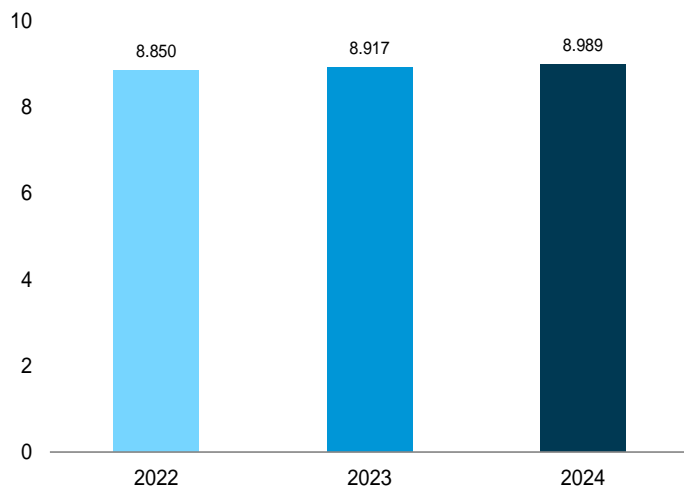
By Major Source, 1949–2023



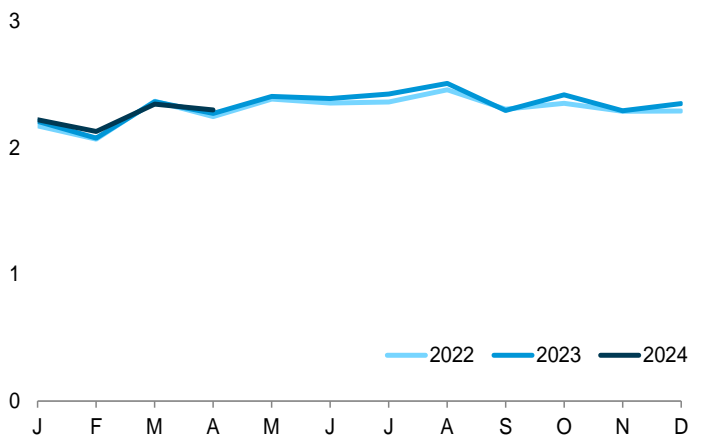
By Major Source, Monthly



Total, January–April



Total, Monthly



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.  
Source: Table 2.5.

**Table 2.5 Transportation Sector Energy Consumption**  
(Trillion Btu)

	End-Use Energy Consumption <sup>a</sup>								Electrical System Energy Losses <sup>g</sup>	Total
	Primary Consumption <sup>b</sup>					Electricity <sup>f</sup>	Total End Use			
	Fossil Fuels				Renewable Energy <sup>c</sup>					
	Coal	Natural Gas <sup>d</sup>	Petroleum <sup>e</sup>	Total	Biomass			Total Primary		
1950 Total	1,564	130	6,690	8,383	NA	8,383	23	8,407	62	8,469
1955 Total	421	254	8,799	9,474	NA	9,474	20	9,494	45	9,539
1960 Total	75	359	10,125	10,560	NA	10,560	10	10,570	21	10,591
1965 Total	16	517	11,866	12,399	NA	12,399	10	12,409	20	12,428
1970 Total	7	745	15,311	16,062	NA	16,062	11	16,073	22	16,094
1975 Total	1	595	17,615	18,211	NA	18,211	10	18,221	21	18,241
1980 Total	(h)	650	19,009	19,659	NA	19,659	11	19,670	23	19,694
1985 Total	(h)	519	19,472	19,992	50	20,042	14	20,056	29	20,084
1990 Total	(h)	679	21,626	22,305	60	22,366	16	22,382	33	22,415
1995 Total	(h)	724	22,920	23,644	112	23,757	17	23,774	35	23,808
2000 Total	(h)	672	25,649	26,321	135	26,456	18	26,474	38	26,512
2005 Total	(h)	624	27,217	27,840	339	28,179	26	28,205	52	28,257
2010 Total	(h)	719	25,100	25,819	1,075	26,894	26	26,920	50	26,970
2011 Total	(h)	734	24,623	25,357	1,166	26,523	26	26,549	48	26,598
2012 Total	(h)	780	24,108	24,888	1,169	26,057	25	26,082	45	26,127
2013 Total	(h)	887	24,361	25,248	1,292	26,541	26	26,567	47	26,614
2014 Total	(h)	760	24,728	25,487	1,314	26,802	26	26,828	47	26,875
2015 Total	(h)	745	25,086	25,831	1,351	27,182	26	27,208	45	27,253
2016 Total	(h)	757	25,515	26,272	1,469	27,741	26	27,767	43	27,810
2017 Total	(h)	799	25,707	26,506	1,474	27,979	26	28,005	42	28,047
2018 Total	(h)	962	26,017	26,979	1,456	28,435	26	28,461	42	28,504
2019 Total	(h)	1,114	25,992	27,106	1,497	28,602	26	28,628	41	28,669
2020 Total	(h)	1,109	21,930	23,039	1,355	24,394	22	24,417	34	24,450
2021 Total	(h)	1,232	24,287	25,519	1,496	27,015	22	27,037	33	27,070
<b>2022 January</b>	(h)	148	1,900	2,048	118	2,166	2	2,168	3	2,171
February	(h)	126	1,825	1,951	111	2,062	2	2,064	3	2,067
March	(h)	114	2,114	2,229	133	2,361	2	2,363	3	2,366
April	(h)	97	2,018	2,115	127	2,242	2	2,244	2	2,246
May	(h)	92	2,153	2,245	134	2,379	2	2,381	3	2,384
June	(h)	95	2,115	2,210	139	2,349	2	2,351	3	2,353
July	(h)	106	2,117	2,223	132	2,355	2	2,357	3	2,360
August	(h)	105	2,207	2,312	141	2,453	2	2,455	3	2,457
September	(h)	94	2,078	2,172	128	2,300	2	2,302	3	2,304
October	(h)	97	2,107	2,204	142	2,346	2	2,347	3	2,350
November	(h)	113	2,034	2,148	135	2,282	2	2,284	3	2,287
December	(h)	139	2,011	2,150	134	2,284	2	2,286	3	2,289
<b>Total</b>	(h)	<b>1,326</b>	<b>24,681</b>	<b>26,006</b>	<b>1,573</b>	<b>27,580</b>	<b>23</b>	<b>27,602</b>	<b>33</b>	<b>27,635</b>
<b>2023 January</b>	(h)	133	1,932	2,066	137	2,203	2	2,205	3	2,208
February	(h)	119	1,828	1,947	124	2,071	2	2,073	3	2,076
March	(h)	122	2,088	2,210	148	2,358	2	2,360	3	2,363
April	(h)	99	2,030	2,129	138	2,267	2	2,269	2	2,271
May	(h)	95	2,144	2,238	161	2,400	2	2,401	3	2,404
June	(h)	97	2,128	2,225	158	2,383	2	2,385	3	2,388
July	(h)	109	2,162	2,271	148	2,419	2	2,421	3	2,424
August	(h)	109	2,233	2,342	162	2,503	2	2,505	3	2,508
September	(h)	97	2,039	2,136	152	2,288	2	2,291	3	2,294
October	(h)	100	2,155	2,254	158	2,412	2	2,414	3	2,417
November	(h)	115	2,028	2,143	145	2,288	2	2,289	3	2,292
December	(h)	128	2,060	2,188	156	2,344	2	2,346	3	2,349
<b>Total</b>	(h)	<b>1,322</b>	<b>24,826</b>	<b>26,148</b>	<b>1,788</b>	<b>27,936</b>	<b>23</b>	<b>27,960</b>	<b>33</b>	<b>27,993</b>
<b>2024 January</b>	(h)	149	1,926	2,075	140	2,215	2	2,217	3	2,221
February	(h)	120	1,854	1,974	149	2,123	2	R 2,124	2	2,127
March	(h)	R 114	2,070	2,183	156	2,339	2	2,341	3	2,344
April	(h)	98	2,046	2,144	150	2,294	2	2,295	2	2,298
<b>4-Month Total</b>	(h)	<b>480</b>	<b>7,896</b>	<b>8,376</b>	<b>595</b>	<b>8,970</b>	<b>8</b>	<b>8,978</b>	<b>11</b>	<b>8,989</b>
<b>2023 4-Month Total</b>	(h)	<b>474</b>	<b>7,878</b>	<b>8,351</b>	<b>548</b>	<b>8,899</b>	<b>7</b>	<b>8,907</b>	<b>10</b>	<b>8,917</b>
<b>2022 4-Month Total</b>	(h)	<b>485</b>	<b>7,858</b>	<b>8,343</b>	<b>489</b>	<b>8,832</b>	<b>8</b>	<b>8,839</b>	<b>11</b>	<b>8,850</b>

<sup>a</sup> Sum of "Total Primary" and "Electricity." See "End-Use Energy Consumption" in Glossary.

<sup>b</sup> Energy consumed in the form that it is first accounted for, before any transformation to secondary or tertiary forms of energy. See "Primary Energy Consumption" in Glossary.

<sup>c</sup> See Table 10.2c for notes on series components.

<sup>d</sup> Natural gas consumed in the operation of pipelines and smaller amounts consumed as vehicle fuel. Does not include supplemental gaseous fuels—see Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>e</sup> Does not include biofuels. Biofuels are included in "Biomass." Includes non-combustion use of lubricants.

<sup>f</sup> Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>g</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity sales to ultimate customers. Total losses are allocated to the end-use sectors in proportion to each sector's

share of total electricity sales to ultimate customers. See Note 1, "Electrical System Energy Losses," at end of section.

<sup>h</sup> Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

R=Revised. NA=Not available.

Notes: • Data are estimates, except for coal totals through 1977; and electricity sales to ultimate customers beginning in 1979. • See Note 2, "Other Energy Losses," at end of section. • See Note 3, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

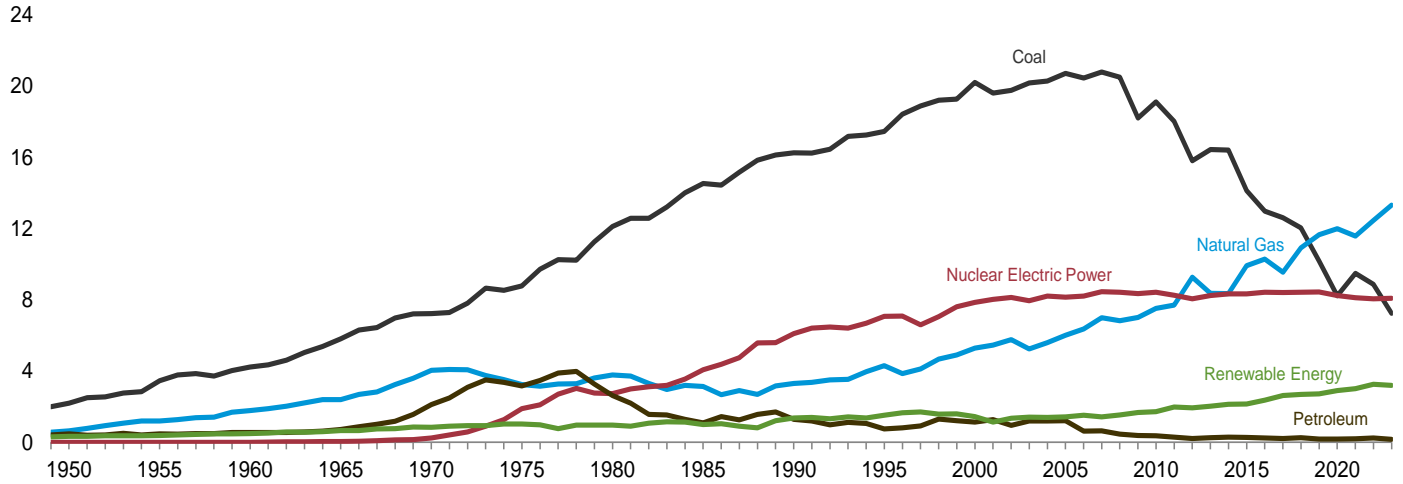
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

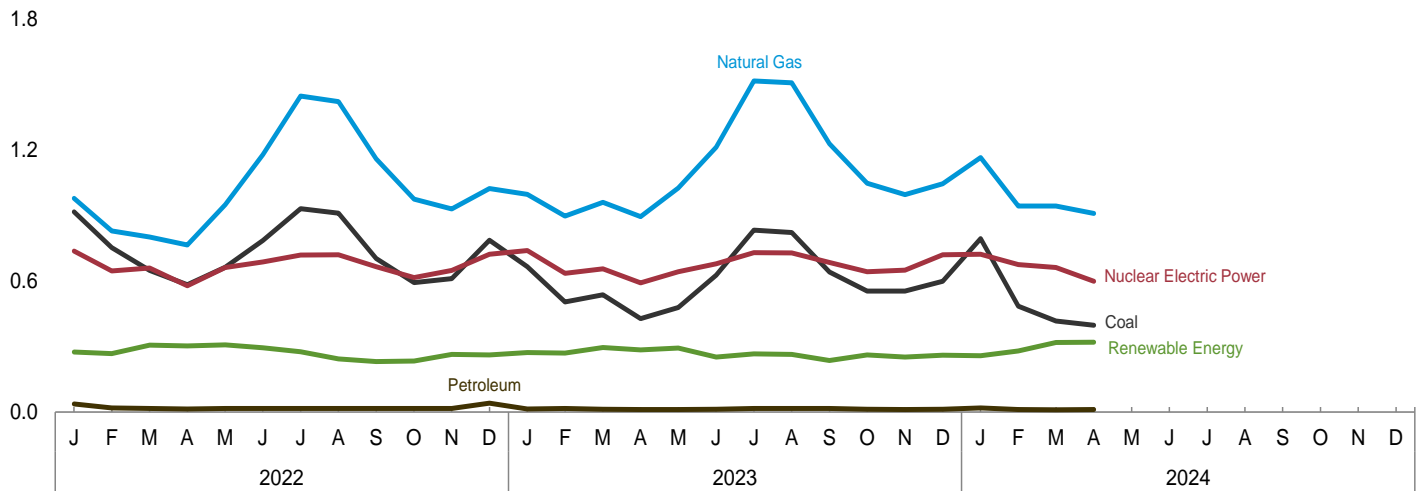
**Figure 2.6 Electric Power Sector Energy Consumption**

(Quadrillion Btu)

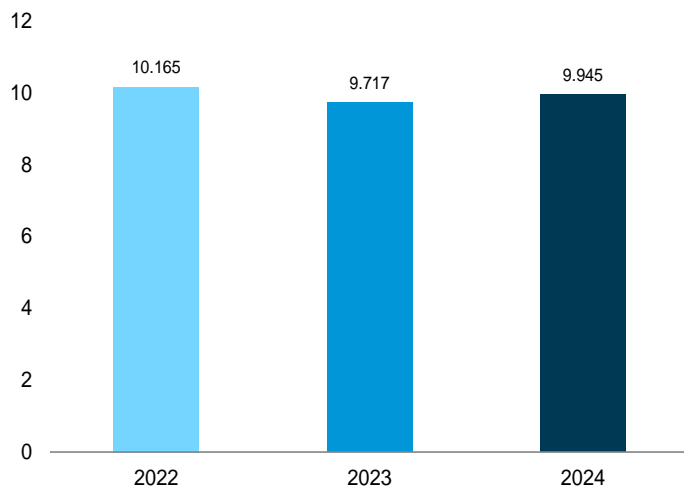
By Major Source, 1949–2023



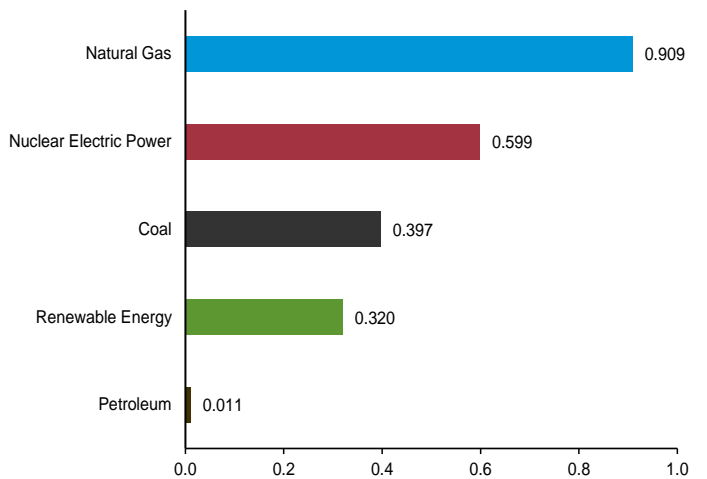
By Major Source, Monthly



Total, January–April



By Major Source, April 2024



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.  
Source: Table 2.6.

**Table 2.6 Electric Power Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>												Elec- tricity Net Imports <sup>f</sup>	Total Primary
	Fossil Fuels				Nuclear Electric Power	Renewable Energy <sup>b</sup>								
	Coal	Natural Gas <sup>c</sup>	Petro- leum	Total		Hydro- electric Power <sup>d</sup>	Geo- thermal	Solar <sup>e</sup>	Wind	Bio- mass	Total			
<b>1950 Total</b> .....	2,199	651	472	3,322	0	327	NA	NA	NA	5	333	6	3,661	
<b>1955 Total</b> .....	3,458	1,194	471	5,123	0	385	NA	NA	NA	3	389	14	5,525	
<b>1960 Total</b> .....	4,228	1,785	553	6,565	6	498	(s)	NA	NA	2	499	15	7,086	
<b>1965 Total</b> .....	5,821	2,395	722	8,938	43	661	1	NA	NA	3	665	(s)	9,646	
<b>1970 Total</b> .....	7,227	4,054	2,117	13,399	239	845	2	NA	NA	4	851	7	14,495	
<b>1975 Total</b> .....	8,786	3,240	3,166	15,191	1,900	1,024	11	NA	NA	2	1,037	21	18,149	
<b>1980 Total</b> .....	12,123	3,778	2,634	18,534	2,739	942	17	NA	NA	4	964	71	22,309	
<b>1985 Total</b> .....	14,542	3,135	1,090	18,767	4,076	959	32	(s)	(s)	14	1,006	140	23,988	
<b>1990 Total</b> .....	16,261	3,309	1,289	20,859	6,104	989	53	1	10	317	1,369	8	28,340	
<b>1995 Total</b> .....	17,466	4,302	755	22,523	7,075	1,042	46	2	11	422	1,522	134	31,254	
<b>2000 Total</b> .....	20,220	5,293	1,144	26,658	7,862	926	48	2	19	453	1,447	115	36,083	
<b>2005 Total</b> .....	20,737	6,015	1,222	27,974	8,161	911	50	2	61	406	1,430	85	37,649	
<b>2010 Total</b> .....	19,133	7,528	370	27,031	8,434	882	52	4	323	459	1,720	89	37,275	
<b>2011 Total</b> .....	18,035	7,712	295	26,042	8,269	1,083	52	6	410	437	1,988	127	36,426	
<b>2012 Total</b> .....	15,821	9,287	214	25,322	8,062	934	53	14	480	453	1,935	161	35,480	
<b>2013 Total</b> .....	16,451	8,376	255	25,082	8,244	904	54	30	572	470	2,030	197	35,554	
<b>2014 Total</b> .....	16,427	8,362	295	25,085	8,338	880	54	59	619	530	2,143	182	35,747	
<b>2015 Total</b> .....	14,138	9,926	276	24,341	8,337	845	54	83	650	525	2,158	227	35,063	
<b>2016 Total</b> .....	12,996	10,301	244	23,542	8,427	909	54	121	774	505	2,363	227	34,558	
<b>2017 Total</b> .....	12,622	9,555	218	22,395	8,419	1,019	54	180	867	510	2,630	192	33,636	
<b>2018 Total</b> .....	12,053	10,922	260	23,235	8,438	993	54	216	929	496	2,689	152	34,514	
<b>2019 Total</b> .....	10,181	11,658	189	22,028	8,452	978	51	243	1,009	448	2,729	133	33,343	
<b>2020 Total</b> .....	8,229	12,000	184	20,413	8,251	969	53	302	1,150	428	2,902	161	31,728	
<b>2021 Total</b> .....	9,498	11,583	205	21,285	8,131	854	53	391	1,289	426	3,014	134	32,564	
<b>2022</b>														
January .....	917	979	37	1,933	737	82	5	27	128	34	275	10	2,955	
February .....	753	829	19	1,600	646	72	4	31	128	32	267	6	2,520	
March .....	648	801	16	1,464	660	83	4	40	147	32	306	7	2,437	
April .....	583	765	14	1,362	578	68	4	45	157	28	303	9	2,252	
May .....	663	950	16	1,629	662	79	5	51	144	29	308	9	2,609	
June .....	786	1,179	17	1,982	687	88	4	54	115	31	294	15	2,977	
July .....	931	1,447	17	2,396	719	84	5	53	101	34	276	19	3,409	
August .....	911	1,422	17	2,350	720	72	5	49	84	33	243	20	3,333	
September .....	703	1,159	17	1,879	666	58	5	45	93	30	231	13	2,789	
October .....	593	975	17	1,585	616	49	4	40	112	29	234	10	2,445	
November .....	611	930	16	1,556	648	61	5	28	140	30	264	9	2,478	
December .....	787	1,023	41	1,851	722	69	5	23	132	32	261	14	2,848	
<b>Total</b> .....	<b>8,885</b>	<b>12,459</b>	<b>244</b>	<b>21,589</b>	<b>8,061</b>	<b>865</b>	<b>55</b>	<b>487</b>	<b>1,481</b>	<b>374</b>	<b>3,263</b>	<b>141</b>	<b>33,053</b>	
<b>2023</b>														
January .....	665	997	14	1,676	740	76	5	27	134	31	273	11	2,700	
February .....	504	897	16	1,416	635	63	4	31	144	27	270	7	2,329	
March .....	537	960	13	1,510	656	69	5	41	152	29	295	9	2,470	
April .....	428	895	12	1,335	592	59	5	50	147	24	285	7	2,218	
May .....	479	1,026	12	1,517	642	93	5	57	109	28	293	9	2,461	
June .....	627	1,213	13	1,852	679	66	4	60	94	28	252	6	2,789	
July .....	833	1,516	17	2,366	730	72	4	64	95	30	266	4	3,366	
August .....	822	1,508	17	2,346	729	72	5	60	97	30	264	5	3,343	
September .....	641	1,229	16	1,885	685	56	5	53	96	27	236	(s)	2,806	
October .....	554	1,048	13	1,616	642	61	5	48	124	23	262	1	2,520	
November .....	554	995	12	1,561	650	61	5	35	126	24	252	2	2,466	
December .....	599	1,045	13	1,657	720	66	5	31	131	27	260	5	2,641	
<b>Total</b> .....	<b>7,242</b>	<b>13,328</b>	<b>167</b>	<b>20,737</b>	<b>8,101</b>	<b>814</b>	<b>56</b>	<b>558</b>	<b>1,450</b>	<b>329</b>	<b>3,207</b>	<b>65</b>	<b>32,110</b>	
<b>2024</b>														
January .....	794	1,166	19	1,980	722	72	5	33	119	29	258	6	2,965	
February .....	485	943	11	1,438	675	67	4	42	142	25	280	1	2,394	
March .....	417	943	10	1,370	662	78	4	53	156	26	318	-1	2,348	
April .....	397	909	11	1,318	599	65	4	64	163	23	320	2	2,238	
<b>4-Month Total</b> .....	<b>2,093</b>	<b>3,962</b>	<b>51</b>	<b>6,106</b>	<b>2,657</b>	<b>282</b>	<b>18</b>	<b>192</b>	<b>580</b>	<b>103</b>	<b>1,175</b>	<b>7</b>	<b>9,945</b>	
<b>2023 4-Month Total</b> .....	<b>2,133</b>	<b>3,749</b>	<b>54</b>	<b>5,936</b>	<b>2,624</b>	<b>267</b>	<b>19</b>	<b>150</b>	<b>576</b>	<b>111</b>	<b>1,123</b>	<b>33</b>	<b>9,717</b>	
<b>2022 4-Month Total</b> .....	<b>2,901</b>	<b>3,374</b>	<b>85</b>	<b>6,360</b>	<b>2,621</b>	<b>306</b>	<b>18</b>	<b>142</b>	<b>560</b>	<b>126</b>	<b>1,152</b>	<b>32</b>	<b>10,165</b>	

<sup>a</sup> See "Primary Energy Consumption" in Glossary.  
<sup>b</sup> See Table 10.2c for notes on series components.  
<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.  
<sup>d</sup> Conventional hydroelectric power.  
<sup>e</sup> Solar photovoltaic (PV) and solar thermal electricity net generation in the electric power sector. See Tables 10.2c and 10.5.  
<sup>f</sup> Net imports equal imports minus exports.  
<sup>g</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.  
 NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • See Note 3, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.  
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.  
 Sources: See end of section.

**Table 2.7 U.S. Government Energy Consumption by Agency, Fiscal Years**  
(Trillion Btu)

Fiscal Year <sup>a</sup>	Agriculture	Defense	DHS <sup>b</sup>	Energy	GSA <sup>c</sup>	HHS <sup>d</sup>	Interior	Justice	NASA <sup>e</sup>	Postal Service	Transportation	Veterans Affairs	Other <sup>f</sup>	Total
1975	9.5	1,360.2	--	50.4	22.3	6.5	9.4	5.9	13.4	30.5	19.3	27.1	10.5	1,565.0
1976	9.3	1,183.3	--	50.3	20.6	6.7	9.4	5.7	12.4	30.0	19.5	25.0	11.2	1,383.4
1977	8.9	1,192.3	--	51.6	20.4	6.9	9.5	5.9	12.0	32.7	20.4	25.9	11.9	1,398.5
1978	9.1	1,157.8	--	50.1	20.4	6.5	9.2	5.9	11.2	30.9	20.6	26.8	12.4	1,360.9
1979	9.2	1,175.8	--	49.6	19.6	6.4	10.4	6.4	11.1	29.3	19.6	25.7	12.3	1,375.4
1980	8.6	1,183.1	--	47.4	18.1	6.0	8.5	5.7	10.4	27.2	19.2	24.8	12.3	1,371.2
1981	7.9	1,239.5	--	47.3	18.0	6.7	7.6	5.4	10.0	27.9	18.8	24.0	11.1	1,424.2
1982	7.6	1,264.5	--	49.0	18.1	6.4	7.4	5.8	10.1	27.5	19.1	24.2	11.6	1,451.4
1983	7.4	1,248.3	--	49.5	16.1	6.2	7.7	5.5	10.3	26.5	19.4	24.1	10.8	1,431.8
1984	7.9	1,292.1	--	51.6	16.2	6.4	8.4	6.4	10.6	27.7	19.8	24.6	10.7	1,482.5
1985	8.4	1,250.6	--	52.2	20.7	6.0	7.8	8.2	10.9	27.8	19.6	25.1	13.1	1,450.3
1986	6.8	1,222.8	--	46.9	14.0	6.2	6.9	8.6	11.2	28.0	19.4	25.0	10.8	1,406.7
1987	7.3	1,280.5	--	48.5	13.1	6.6	6.6	8.1	11.3	28.5	19.0	24.9	11.9	1,466.3
1988	7.8	1,165.8	--	49.9	12.4	6.4	7.0	9.4	11.3	29.6	18.7	26.3	15.8	1,360.3
1989	8.7	1,274.4	--	44.2	12.7	6.7	7.1	7.7	12.4	30.3	18.5	26.2	15.6	1,464.7
1990	9.6	1,241.7	--	43.5	17.5	7.1	7.4	7.0	12.4	30.6	19.0	24.9	17.5	1,438.0
1991	9.6	1,269.3	--	42.1	14.0	6.2	7.1	8.0	12.5	30.8	19.0	25.1	18.1	1,461.7
1992	9.1	1,104.0	--	44.3	13.8	6.8	7.0	7.5	12.6	31.7	17.0	25.3	15.7	1,294.8
1993	9.3	1,048.8	--	43.4	14.1	7.2	7.5	9.1	12.4	33.7	19.4	25.7	16.2	1,246.8
1994	9.4	977.0	--	42.1	14.0	7.5	7.9	10.3	12.6	35.0	19.8	25.6	17.1	1,178.2
1995	9.0	926.0	--	47.3	13.7	6.1	6.4	10.2	12.4	36.2	18.7	25.4	17.1	1,128.5
1996	9.1	904.5	--	44.6	14.5	6.6	4.3	12.1	11.5	36.4	19.6	26.8	17.7	1,107.7
1997	7.4	880.0	--	43.1	14.4	7.9	6.6	12.0	12.0	40.8	19.1	27.3	20.8	1,091.2
1998	7.9	837.1	--	31.5	14.1	7.4	6.4	15.8	11.7	39.5	18.5	27.6	19.5	1,037.1
1999	7.8	810.7	--	27.0	14.4	7.1	7.5	15.4	11.4	39.8	22.6	27.5	19.8	1,010.9
2000	7.4	779.1	--	30.5	17.6	8.0	7.8	19.7	11.1	43.3	21.2	27.0	20.3	993.1
2001	7.4	787.2	--	31.1	18.4	8.5	9.5	19.7	10.9	43.4	17.8	27.7	20.7	1,002.3
2002	7.2	837.5	--	30.7	17.5	8.0	8.2	17.7	10.7	41.6	18.3	27.7	18.4	1,043.4
2003	7.7	895.1	18.3	31.9	18.5	10.1	7.3	22.7	10.8	50.9	5.5	30.6	22.7	1,132.3
2004	7.0	960.7	23.5	31.4	18.3	8.8	8.7	17.5	9.9	50.5	5.2	29.9	20.4	1,191.7
2005	7.5	933.2	18.9	29.6	18.4	9.6	8.6	18.8	10.3	53.5	5.0	30.0	23.2	1,166.4
2006	6.8	843.7	17.1	32.9	18.2	9.3	8.1	23.5	10.2	51.8	4.6	29.3	20.9	1,076.4
2007	6.8	864.6	17.1	31.5	19.1	9.9	7.5	20.7	10.6	45.8	5.6	30.0	21.0	1,090.2
2008	6.5	910.8	22.0	32.1	18.8	10.3	7.1	19.0	10.8	47.1	7.7	29.0	22.4	1,143.4
2009	6.6	874.3	18.6	31.1	18.6	10.8	7.9	16.5	10.2	44.2	4.3	29.9	21.8	1,094.8
2010	6.8	889.9	21.2	31.7	18.8	10.4	7.3	15.7	10.1	43.3	5.7	30.2	21.8	1,112.7
2011	8.3	890.3	20.3	33.1	18.5	10.5	7.3	13.9	10.1	43.0	6.7	30.6	21.4	1,114.1
2012	6.7	828.5	20.1	30.3	16.3	10.0	6.7	15.1	8.9	40.8	5.6	29.7	20.5	1,039.3
2013	7.3	749.5	18.9	28.9	16.4	10.5	6.2	15.3	8.7	41.9	5.3	29.9	20.4	959.3
2014	6.3	730.6	18.5	29.4	17.0	9.5	6.2	15.6	8.3	43.0	5.2	31.4	20.6	941.5
2015	6.2	734.5	17.9	30.1	16.3	9.0	6.8	16.2	8.4	44.0	6.0	30.7	19.8	945.9
2016	6.2	709.2	18.1	28.9	15.8	8.7	6.4	15.6	8.5	43.9	6.0	30.3	19.5	917.2
2017	6.3	707.9	19.2	28.8	15.0	8.8	5.9	15.5	8.6	43.7	6.6	29.1	19.7	915.1
2018	6.1	690.6	16.8	27.3	15.6	10.0	6.1	16.2	8.4	45.5	5.8	29.7	18.8	897.0
2019	5.9	682.1	16.2	27.2	15.4	9.8	6.2	15.8	8.5	46.0	5.9	31.9	19.1	890.0
2020	5.4	648.8	17.1	26.4	14.4	9.5	5.5	14.6	8.1	46.1	5.5	30.6	17.0	849.0
2021	6.4	650.7	15.9	27.5	14.4	9.1	5.4	14.5	8.1	45.5	5.6	30.3	18.1	851.5
2022	8.0	622.5	16.5	26.3	13.4	9.6	6.3	14.5	8.4	48.3	5.5	30.8	17.3	827.2

<sup>a</sup> For 1975 and 1976, the U.S. Government's fiscal year was July 1 through June 30. Beginning in 1977, the U.S. Government's fiscal year is October 1 through September 30 (for example, fiscal year 2014 is October 2013 through September 2014).

<sup>b</sup> U.S. Department of Homeland Security.

<sup>c</sup> General Services Administration.

<sup>d</sup> U.S. Department of Health and Human Services.

<sup>e</sup> National Aeronautics and Space Administration.

<sup>f</sup> Includes all U.S. government agencies not separately displayed. See <http://ctsedweb.ee.doe.gov/Annual/Report/AgencyReference.aspx> for agency list.

-- =Not applicable.

Notes: • Data in this table are developed using conversion factors that often

differ from those in Tables A1–A6. • Data include energy consumed at foreign installations and in foreign operations, including aviation and ocean bunkering, primarily by the U.S. Department of Defense. U.S. Government energy use for electricity generation and uranium enrichment is excluded. • Totals may not equal sum of components due to independent rounding.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all annual data beginning in 1975.

Sources: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Federal Energy Management Program. See <http://ctsedweb.ee.doe.gov/Annual/Report/Report.aspx>, "A-1 Total Site-Delivered Energy Use in All End-Use Sectors, by Federal Agency (Billion Btu)".



**Table 2.8 U.S. Government Energy Consumption by Source, Fiscal Years**  
(Trillion Btu)

Fiscal Year <sup>a</sup>	Coal	Natural Gas <sup>b</sup>	Petroleum						Other Mobility Fuels <sup>f</sup>	Elec- tricity	Purchased Steam and Other <sup>g</sup>	Total
			Aviation Gasoline	Fuel Oil <sup>c</sup>	Jet Fuel	LPG <sup>d</sup>	Motor Gasoline <sup>e</sup>	Total				
1975	77.9	166.2	22.0	376.0	707.4	5.6	63.2	1,174.2	0.0	141.5	5.1	1,565.0
1976	71.3	151.8	11.6	329.7	610.0	4.7	60.4	1,016.4	.0	139.3	4.6	1,383.4
1977	68.4	141.2	8.8	348.5	619.2	4.1	61.4	1,042.1	.0	141.1	5.7	1,398.5
1978	66.0	144.7	6.2	332.3	601.1	3.0	60.1	1,002.9	.0	141.0	6.4	1,360.9
1979	65.1	148.9	4.7	327.1	618.6	3.7	59.1	1,013.1	.0	141.2	7.1	1,375.4
1980	63.5	147.3	4.9	307.7	638.7	3.8	56.5	1,011.6	.2	141.9	6.8	1,371.2
1981	65.1	142.2	4.6	351.3	653.3	3.5	53.2	1,066.0	.2	144.5	6.2	1,424.2
1982	68.6	146.2	3.6	349.4	672.7	3.7	53.1	1,082.5	.2	147.5	6.2	1,451.4
1983	62.4	147.8	2.6	329.5	673.4	3.8	51.6	1,060.8	.2	151.5	9.0	1,431.8
1984	65.3	157.4	1.9	342.9	693.7	3.9	51.2	1,093.6	.2	155.9	10.1	1,482.5
1985	64.8	149.9	1.9	292.6	705.7	3.8	50.4	1,054.3	.2	167.2	13.9	1,450.3
1986	63.8	140.9	1.4	271.6	710.2	3.6	45.3	1,032.1	.3	155.8	13.7	1,406.7
1987	67.0	145.6	1.0	319.5	702.3	3.6	43.1	1,069.5	.4	169.9	13.9	1,466.3
1988	60.2	144.6	6.0	284.8	617.2	2.7	41.2	951.9	.4	171.2	32.0	1,360.3
1989	48.7	152.4	.8	245.3	761.7	3.5	41.1	1,052.4	2.2	188.6	20.6	1,464.7
1990	44.3	159.4	.5	245.2	732.4	3.8	37.2	1,019.1	2.6	193.6	19.1	1,438.0
1991	45.9	154.1	.4	232.6	774.5	3.0	34.1	1,044.7	6.0	192.7	18.3	1,461.7
1992	51.7	151.2	1.0	200.6	628.2	3.0	35.6	868.4	8.4	192.5	22.5	1,294.8
1993	38.3	152.9	.7	187.0	612.4	3.5	34.5	838.1	5.8	193.1	18.6	1,246.8
1994	35.0	143.9	.6	198.5	550.7	3.2	29.5	782.6	7.7	190.9	18.2	1,178.2
1995	31.7	149.4	.3	178.4	522.3	3.0	31.9	735.9	8.4	184.8	18.2	1,128.5
1996	23.3	147.3	.2	170.5	513.0	3.1	27.6	714.4	18.7	184.0	20.1	1,107.7
1997	22.5	153.8	.3	180.0	475.7	2.6	39.0	697.6	14.5	183.6	19.2	1,091.2
1998	23.9	140.4	.2	174.5	445.5	3.5	43.0	666.8	5.9	181.4	18.8	1,037.1
1999	21.2	137.4	.1	162.1	444.7	2.4	41.1	650.4	.4	180.0	21.5	1,010.9
2000	22.7	133.8	.2	171.3	403.1	2.5	43.9	621.0	1.8	193.6	20.2	993.1
2001	18.8	133.7	.2	176.9	415.2	3.1	42.5	638.0	4.8	188.4	18.6	1,002.3
2002	16.9	133.7	.2	165.6	472.9	2.8	41.3	682.8	3.2	188.3	18.5	1,043.4
2003	18.1	135.5	.3	190.8	517.9	3.2	46.3	758.4	3.3	193.8	23.2	1,132.3
2004	17.4	135.3	.2	261.4	508.2	2.9	44.1	816.9	3.1	197.1	22.0	1,191.7
2005	17.1	135.7	.4	241.4	492.2	3.4	48.8	786.1	5.6	197.6	24.3	1,166.4
2006	23.5	132.6	.6	209.3	442.6	2.7	48.3	703.6	2.1	196.7	18.2	1,076.4
2007	20.4	131.5	.4	212.9	461.1	2.7	46.5	723.7	2.9	194.9	16.7	1,090.2
2008	20.8	129.6	.4	198.4	525.4	2.3	49.0	775.4	3.6	196.2	17.9	1,143.4
2009	20.3	131.7	.3	166.4	505.7	3.2	48.3	723.9	10.1	191.3	17.7	1,094.8
2010	20.0	130.1	.4	157.8	535.8	2.5	51.3	747.7	3.0	193.7	18.2	1,112.7
2011	18.5	124.7	.9	166.5	533.6	2.0	52.7	755.8	2.7	193.2	19.1	1,114.1
2012	15.9	116.2	.4	148.6	493.5	1.7	50.1	694.4	3.1	187.2	22.5	1,039.3
2013	14.3	122.5	.7	140.0	424.0	1.9	46.6	613.2	2.8	184.7	21.8	959.3
2014	13.5	125.6	.3	133.5	414.3	1.8	44.9	594.8	3.6	182.1	21.9	941.5
2015	12.6	122.2	.3	134.4	418.9	1.8	46.8	602.2	3.7	184.3	20.9	945.9
2016	10.2	115.4	.3	129.7	403.9	1.7	46.5	582.2	3.6	184.5	21.4	917.2
2017	9.1	115.1	.3	135.1	400.1	1.5	46.4	583.5	2.7	181.7	23.0	915.1
2018	6.2	125.8	.3	127.8	383.2	1.7	45.5	558.5	3.0	180.0	23.6	897.0
2019	5.0	131.7	.3	125.4	376.8	1.9	46.6	551.0	2.7	178.2	21.5	890.0
2020	5.2	128.3	.2	129.6	345.0	1.7	43.3	520.0	1.6	173.7	20.3	849.0
2021	5.3	129.6	.4	122.2	352.0	1.7	44.9	521.2	1.9	173.1	20.5	851.5
2022	3.5	128.8	.2	126.4	326.9	1.6	44.4	499.5	1.8	171.8	21.8	827.2

<sup>a</sup> For 1975 and 1976, the U.S. Government's fiscal year was July 1 through June 30. Beginning in 1977, the U.S. Government's fiscal year is October 1 through September 30 (for example, fiscal year 2014 is October 2013 through September 2014).

<sup>b</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>c</sup> Distillate fuel oil, including diesel fuel; and residual fuel oil, including Navy Special.

<sup>d</sup> Liquefied petroleum gases, primarily propane.

<sup>e</sup> Includes E10 (a mixture of 10% ethanol and 90% motor gasoline) and E15 (a mixture of 15% ethanol and 85% motor gasoline).

<sup>f</sup> Other types of fuel used in vehicles and equipment. Primarily includes alternative fuels such as compressed natural gas (CNG); liquefied natural gas (LNG); E85 (a mixture of 85% ethanol and 15% motor gasoline); B20 (a mixture of 20% biodiesel and 80% diesel fuel); B100 (100% biodiesel); hydrogen; and methanol.

<sup>g</sup> Other types of energy used in facilities. Primarily includes chilled water, but also includes small amounts of renewable energy such as wood and solar thermal.

Notes: • Data in this table are developed using conversion factors that often differ from those in Tables A1–A6. • Data include energy consumed at foreign installations and in foreign operations, including aviation and ocean bunkering, primarily by the U.S. Department of Defense. U.S. Government energy use for electricity generation and uranium enrichment is excluded. • Totals may not equal sum of components due to independent rounding.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all annual data beginning in 1975.

Sources: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Federal Energy Management Program. See <http://ctsedweb.ee.doe.gov/Annual/Report/Report.aspx>, "A-5 Historical Federal Energy Consumption and Cost Data by Agency and Energy Type (FY 1975 to Present)".

## Energy Consumption by Sector

**Note 1. Electrical System Energy Losses.** Electrical system energy losses are calculated as the difference between total primary consumption by the electric power sector (see Table 2.6) and the total energy content of electricity sales to ultimate customers (see Tables 7.6 and A6). Most of these losses are from the conversion of heat energy into mechanical energy to turn electric generators at fossil fuel, biomass, and nuclear plants. These losses are a necessary feature of the thermodynamic cycles of these power plants (steam-electric, gas-electric, and combined-cycle). Overall, about two thirds of total energy input is lost in conversion. In addition to conversion losses, other losses include power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called “line losses”), and unaccounted-for electricity. Currently, of electricity generated, approximately 5% is lost in plant use and 7% is lost in transmission and distribution. Total losses are allocated to the end-use sectors in proportion to each sector’s share of total electricity sales.

**Note 2. Other Energy Losses.** Similar to electrical system energy losses, there are also other energy losses from energy consumption not separately identified. There are losses in the production of energy, the transformation of one form of energy to another form of energy, and the distribution and use of energy. For example, there are transformation losses in the process of refining crude oil into usable petroleum products, processing natural gas into marketable dry gas, and in the process of converting energy from the sun into usable energy with solar panels. All uses of primary energy have efficiency losses, usually in the form of heat, when energy is converted to do useful work. Examples include when motor gasoline is burned to move vehicles, when natural gas is burned to heat homes, or in any household appliance that uses electricity. The Lawrence Livermore National Laboratory estimates primary energy losses by end-use sector by applying an end-use efficiency factor to EIA’s *Monthly Energy Review* consumption data. <https://flowcharts.llnl.gov/>.

**Note 3. Energy Consumption Data and Surveys.** Most of the data in this section of the Monthly Energy Review (MER) are developed from a group of energy-related surveys, typically called “supply surveys,” conducted by the U.S. Energy Information Administration (EIA). Supply surveys are directed to suppliers and marketers of specific energy sources. They measure the quantities of specific energy sources produced, or the quantities supplied to the market, or both. The data obtained from EIA’s supply surveys are integrated to yield the summary consumption statistics published in this section (and in Section 1) of the MER.

Users of EIA’s energy consumption statistics should be aware of a second group of energy-related surveys, typically called “consumption surveys.” Consumption surveys gather information on the types of energy consumed by end users of energy, along with the characteristics of those end users that can be associated with energy use. For example, the “Manufacturing Energy Consumption Survey” belongs to the consumption survey group because it collects information directly from end users (the manufacturing establishments). There are important differences between the supply and consumption surveys that need to be taken into account in any analysis that uses both data sources. For information on those differences, see “Energy Consumption by End-Use Sector, A Comparison of Measures by Consumption and Supply Surveys,” DOE/EIA-0533, U.S. Energy Information Administration, Washington, DC, April 6, 1990.

### Table 2.2 Sources

#### *Coal*

1949–2007: Residential sector coal consumption data from Table 6.2 are converted to Btu by multiplying by the residential and commercial sectors coal consumption heat content factors in Table A5.

#### *Natural Gas*

1949–1979: Residential sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4.

1980 forward: Residential sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4. The residential sector portion of supplemental gaseous fuels data in Btu is estimated using the method described in Note 3, “Supplemental Gaseous Fuels,” at the end of Section 4. Residential sector natural gas (excluding supplemental

gaseous fuels) consumption is equal to residential sector natural gas (including supplemental gaseous fuels) consumption minus the residential sector portion of supplemental gaseous fuels.

### *Petroleum*

1949 forward: Table 3.8a.

### *Fossil Fuels Total*

1949–2007: Residential sector total fossil fuels consumption is the sum of the residential sector consumption values for coal, natural gas, and petroleum.

2008 forward: Residential sector total fossil fuels consumption is the sum of the residential sector consumption values for natural gas and petroleum.

### *Renewable Energy*

1949 forward: Table 10.2a.

### *Total Primary Energy Consumption*

1949 forward: Residential sector total primary energy consumption is the sum of the residential sector consumption values for fossil fuels and renewable energy.

### *Electricity Sales to Ultimate Customers*

1949 forward: Residential sector electricity sales to ultimate customers from Table 7.6 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *End-Use Energy Consumption*

1949 forward: Residential sector end-use energy consumption is the sum of residential sector total primary energy consumption and residential sector electricity sales to ultimate customers.

### *Electrical System Energy Losses*

1949 forward: Total electrical system energy losses are equal to electric power sector total primary energy consumption from Table 2.6 minus total electricity sales to ultimate customers from Table 7.6 (converted to Btu by multiplying by the electricity heat content factor in Table A6). Total electrical system energy losses are allocated to the residential sector in proportion to the residential sector's share of total electricity sales to ultimate customers from Table 7.6. See Note 1, "Electrical System Energy Losses."

### *Total Energy Consumption*

1949 forward: Residential sector total energy consumption is the sum of the residential sector consumption values for total primary energy, electricity sales to ultimate customers, and electrical system energy losses.

## Table 2.3 Sources

### *Coal*

1949 forward: Commercial sector coal consumption data from Table 6.2 are converted to Btu by multiplying by the residential and commercial sectors coal consumption heat content factors in Table A5.

### *Natural Gas*

1949–1979: Commercial sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4.

1980 forward: Commercial sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4. The commercial sector portion of supplemental gaseous fuels data in Btu is estimated using the method described in Note 3, "Supplemental Gaseous Fuels," at the end of Section 4. Commercial sector natural gas (excluding supplemental gaseous fuels) consumption is equal to commercial sector natural gas (including supplemental gaseous fuels) consumption minus the commercial sector portion of supplemental gaseous fuels.

### *Petroleum*

1949–1992: Table 3.8a.

1993–2008: The commercial sector share of motor gasoline consumption is equal to commercial sector motor gasoline consumption from Table 3.7a divided by motor gasoline product supplied from Table 3.5. Commercial sector fuel ethanol (including denaturant) consumption is equal to total fuel ethanol (including denaturant) consumption from Table 10.3 multiplied by the commercial sector share of motor gasoline consumption. Commercial sector petroleum (excluding biofuels) consumption is equal to commercial sector petroleum (including biofuels) consumption from Table 3.8a minus commercial sector fuel ethanol (including denaturant) consumption.

2009 forward: Commercial sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the commercial sector share of motor gasoline consumption (see 1993–2008 sources above). Commercial sector petroleum (excluding biofuels) consumption is equal to commercial sector petroleum (including biofuels) consumption from Table 3.8a minus commercial sector fuel ethanol (minus denaturant) consumption.

### *Fossil Fuels Total*

1949 forward: Commercial sector total fossil fuels consumption is the sum of the commercial sector consumption values for coal, natural gas, and petroleum.

### *Renewable Energy*

1949 forward: Table 10.2a.

### *Total Primary Energy Consumption*

1949 forward: Commercial sector total primary energy consumption is the sum of the commercial sector consumption values for fossil fuels and renewable energy.

### *Electricity Sales to Ultimate Customers*

1949 forward: Commercial sector electricity sales to ultimate customers from Table 7.6 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *End-Use Energy Consumption*

1949 forward: Commercial sector end-use energy consumption is the sum of commercial sector total primary energy consumption and commercial sector electricity sales to ultimate customers.

### *Electrical System Energy Losses*

1949 forward: Total electrical system energy losses are equal to electric power sector total primary energy consumption from Table 2.6 minus total electricity sales to ultimate customers from Table 7.6 (converted to Btu by multiplying by the electricity heat content factor in Table A6). Total electrical system energy losses are allocated to the commercial sector in proportion to the commercial sector's share of total electricity sales to ultimate customers from Table 7.6. See Note 1, "Electrical System Energy Losses."

### *Total Energy Consumption*

1949 forward: Commercial sector total energy consumption is the sum of the commercial sector consumption values for total primary energy, electricity sales to ultimate customers, and electrical system energy losses.

## Table 2.4 Sources

### *Coal*

1949 forward: Coke plants coal consumption from Table 6.2 is converted to Btu by multiplying by the coke plants coal consumption heat content factors in Table A5. Other industrial coal consumption from Table 6.2 is converted to Btu by multiplying by the other industrial coal consumption heat content factors in Table A5. Industrial sector coal consumption is equal to coke plants coal consumption and other industrial coal consumption.

### *Natural Gas*

1949–1979: Industrial sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4.

1980 forward: Industrial sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4. The industrial sector portion of supplemental gaseous fuels data in Btu is estimated using the method described in Note 3, “Supplemental Gaseous Fuels,” at the end of Section 4. Industrial sector natural gas (excluding supplemental gaseous fuels) consumption is equal to industrial sector natural gas (including supplemental gaseous fuels) consumption minus the industrial sector portion of supplemental gaseous fuels.

### *Petroleum*

1949–1992: Table 3.8b.

1993–2008: The industrial sector share of motor gasoline consumption is equal to industrial sector motor gasoline consumption from Table 3.7b divided by motor gasoline product supplied from Table 3.5. Industrial sector fuel ethanol (including denaturant) consumption is equal to total fuel ethanol (including denaturant) consumption from Table 10.3 multiplied by the industrial sector share of motor gasoline consumption. Industrial sector petroleum (excluding biofuels) consumption is equal to industrial sector petroleum (including biofuels) consumption from Table 3.8b minus industrial sector fuel ethanol (including denaturant) consumption.

2009 forward: Industrial sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the industrial sector share of motor gasoline consumption (see 1993–2008 sources above). Industrial sector petroleum (excluding biofuels) consumption is equal to industrial sector petroleum (including biofuels) consumption from Table 3.8b minus industrial sector fuel ethanol (minus denaturant) consumption.

### *Coal Coke Net Imports*

1949 forward: Coal coke net imports are equal to coal coke imports from Table 1.4a minus coal coke exports from Table 1.4b.

### *Fossil Fuels Total*

1949 forward: Industrial sector total fossil fuels consumption is the sum of the industrial sector consumption values for coal, natural gas, and petroleum, plus coal coke net imports.

### *Renewable Energy*

1949 forward: Table 10.2b.

### *Total Primary Energy Consumption*

1949 forward: Industrial sector total primary energy consumption is the sum of the industrial sector consumption values for fossil fuels and renewable energy.

### *Electricity Sales to Ultimate Customers*

1949 forward: Industrial sector electricity sales to ultimate customers from Table 7.6 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *End-Use Energy Consumption*

1949 forward: Industrial sector end-use energy consumption is the sum of industrial sector total primary energy consumption and residential sector electricity sales to ultimate customers.

### *Electrical System Energy Losses*

1949 forward: Total electrical system energy losses are equal to electric power sector total primary energy consumption from Table 2.6 minus total electricity sales to ultimate customers from Table 7.6 (converted to Btu by multiplying by the electricity heat content factor in Table A6). Total electrical system energy losses are allocated to the industrial sector in

proportion to the industrial sector's share of total electricity sales to ultimate customers from Table 7.6. See Note 1, "Electrical System Energy Losses."

### *Total Energy Consumption*

1949 forward: Industrial sector total energy consumption is the sum of the industrial sector consumption values for total primary energy, electricity sales to ultimate customers, and electrical system energy losses.

## Table 2.5 Sources

### *Coal*

1949–1977: Transportation sector coal consumption data from Table 6.2 are converted to Btu by multiplying by the other industrial sector coal consumption heat content factors in Table A5.

### *Natural Gas*

1949 forward: Transportation sector natural gas consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4.

### *Petroleum*

1949–1992: Table 3.8c.

1993–2008: The transportation sector share of motor gasoline consumption is equal to transportation sector motor gasoline consumption from Table 3.7c divided by motor gasoline product supplied from Table 3.5. Transportation sector fuel ethanol (including denaturant) consumption is equal to total fuel ethanol (including denaturant) consumption from Table 10.3 multiplied by the transportation sector share of motor gasoline consumption. Transportation sector petroleum (excluding biofuels) consumption is equal to transportation sector petroleum (including biofuels) consumption from Table 3.8c minus transportation sector fuel ethanol (including denaturant) consumption.

2009–2011: Transportation sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the transportation sector share of motor gasoline consumption (see 1993–2008 sources above). Transportation sector petroleum (excluding biofuels) consumption is equal to: transportation sector petroleum (including biofuels) consumption from Table 3.8c; minus transportation sector fuel ethanol (minus denaturant) consumption; minus biodiesel consumption, calculated using biodiesel data from U.S. Energy Information Administration (EIA), EIA-22M, "Monthly Biodiesel Production Survey"; and biomass-based diesel fuel data from EIA-810, "Monthly Refinery Report," EIA-812, "Monthly Product Pipeline Report," and EIA-815, "Monthly Bulk Terminal and Blender Report" (the data are converted to Btu by multiplying by the biodiesel heat content factor in Table A1); minus renewable diesel fuel and other biofuels refinery and blender net inputs, calculated using "other renewable diesel fuel" and "other renewable fuels" data from EIA-810, "Monthly Refinery Report," and EIA-815, "Monthly Bulk Terminal and Blender Report" (the data are converted to Btu by multiplying by the heat content factors for renewable diesel fuel and other biofuels in Table A1).

2012–2020: Transportation sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the transportation sector share of motor gasoline consumption (see 1993–2008 sources above). Transportation sector petroleum (excluding biofuels) consumption is equal to: transportation sector petroleum (including biofuels) consumption from Table 3.8c; minus transportation sector fuel ethanol (minus denaturant) consumption; minus biodiesel consumption from Table 10.4; minus renewable diesel fuel and other biofuels refinery and blender net inputs, calculated using "other renewable diesel fuel" and "other renewable fuels" data from EIA-810, "Monthly Refinery Report," and EIA-815, "Monthly Bulk Terminal and Blender Report" (the data are converted to Btu by multiplying by the heat content factors for renewable diesel fuel and other biofuels in Table A1).

2021 forward: Transportation sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the transportation sector share of motor gasoline consumption (see 1993–2008 sources above). Transportation sector petroleum (excluding biofuels) consumption is equal to: transportation sector petroleum (including biofuels) consumption from Table 3.8c; minus transportation sector fuel ethanol (minus denaturant) consumption; minus biodiesel, renewable diesel fuel, and other biofuels refinery and

blender net inputs and products supplied, calculated using “biofuels except fuel ethanol” refinery and blender net inputs and products supplied from U.S. Energy Information Administration (EIA), *Petroleum Supply Annual* and *Petroleum Supply Monthly* (data are converted to Btu by multiplying by the appropriate heat content factors in Table A1).

### ***Fossil Fuels Total***

1949–1977: Transportation sector total fossil fuels consumption is the sum of the transportation sector consumption values for coal, natural gas, and petroleum.

1978 forward: Transportation sector total fossil fuels consumption is the sum of the transportation sector consumption values for natural gas and petroleum.

### ***Renewable Energy***

1981 forward: Table 10.2b.

### ***Total Primary Energy Consumption***

1949–1980: Transportation sector total primary energy consumption is equal to transportation sector fossil fuels consumption.

1981 forward: Transportation sector total primary energy consumption is the sum of the transportation sector consumption values for fossil fuels and renewable energy.

### ***Electricity Sales to Ultimate Customers***

1949 forward: Transportation sector electricity sales to ultimate customers from Table 7.6 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### ***End-Use Energy Consumption***

1949 forward: Transportation sector end-use energy consumption is the sum of transportation sector total primary energy consumption and residential sector electricity sales to ultimate customers.

### ***Electrical System Energy Losses***

1949 forward: Total electrical system energy losses are equal to electric power sector total primary energy consumption from Table 2.6 minus total electricity sales to ultimate customers from Table 7.6 (converted to Btu by multiplying by the electricity heat content factor in Table A6). Total electrical system energy losses are allocated to the transportation sector in proportion to the transportation sector’s share of total electricity sales to ultimate customers from Table 7.6. See Note 1, “Electrical System Energy Losses.”

### ***Total Energy Consumption***

1949 forward: Transportation sector total energy consumption is the sum of the transportation sector consumption values for total primary energy, electricity sales to ultimate customers, and electrical system energy losses.

## **Table 2.6 Sources**

### ***Coal***

1949 forward: Electric power sector coal consumption data from Table 6.2 are converted to Btu by multiplying by the electric power sector coal consumption heat content factors in Table A5.

### ***Natural Gas***

1949–1979: Electric power sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas electric power sector consumption heat content factors in Table A4.

1980 forward: Electric power sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas electric power sector consumption heat content factors in Table A4. The electric power sector portion of supplemental gaseous fuels data in Btu is estimated using the method described in Note 3, “Supplemental Gaseous Fuels,” at the end of Section 4. Electric power sector natural gas (excluding

supplemental gaseous fuels) consumption is equal to electric power sector natural gas (including supplemental gaseous fuels) consumption minus the electric power sector portion of supplemental gaseous fuels.

***Petroleum***

1949 forward: Table 3.8c.

***Fossil Fuels Total***

1949 forward: Electric power sector total fossil fuels consumption is the sum of the electric power sector consumption values for coal, natural gas, and petroleum.

***Nuclear Electric Power***

1949 forward: Nuclear electricity net generation data from Table 7.2a are converted to Btu by multiplying by the nuclear heat rate factors in Table A6.

***Renewable Energy***

1949 forward: Table 10.2c.

***Electricity Net Imports***

1949 forward: Electricity net imports are equal to electricity imports from Table 1.4a minus electricity exports from Table 1.4b.

***Total Primary Energy Consumption***

1949 forward: Electric power sector total primary energy consumption is the sum of the electric power sector consumption values for fossil fuels, nuclear electric power, and renewable energy, plus electricity net imports.